United States Court of Appeals for the District of Columbia Circuit

TRANSCRIPT OF RECORD

BRIEF FOR SEAGRAM, APPELLANT

179

IN THE

UNITED STATES COURT OF APPEALS

FOR THE DISTRICT OF COLUMBIA CIRCUIT.

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for the District of Columbia
Circuit
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No. 10067

JOSEPH E. SEAGRAM & SONS, INC., a corporation,
Appellant,

v.

John A. Marzall
~~LAWRENCE C. KINGSLAND~~, Commissioner of Patents,
Appellee.

Appeal from the United States District Court for the District of Columbia.

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*POBA designates Patent Office Board of Appeals PQ designates United States Patents Quarterly.

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IN THE

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No. 10067.

JOSEPH E. SEAGRAM & SONS, INC., a corporation,
Appellant,

v.

LAWRENCE C. KINGSLAND, Commissioner of Patents,
Appellee.

Appeal from the United States District Court for the District of Columbia.

BRIEF FOR SEAGRAM, APPELLANT.

JURISDICTIONAL STATEMENT.

Joseph E. Seagram & Sons, Inc., the plaintiff below and the appellant here, hereafter called Seagram, filed this action, in the District Court under RS Section 4915 (Act of February 9, 1893 C 74, Section 9, 27 Stat. 436; March 2, 1927, c. 273, Section 11, 44 Stat. 1336; March 2, 1929, c. 488, Section 2(b), 45 Stat. 1476; August 5, 1939, c. 451; Section 4, 53 Stat. 1212; USC Title 35, Section 63), alleging that it was entitled to receive a patent which the Commissioner of Patents had, within the last six months, refused to grant and that an appeal from the Commissioner's decision was neither filed nor pending in the United States Court of Customs and Patent Appeals (App. 2-3). The District Court dismissed the complaint (App. 18) and Seagram brings this appeal (App. 19) under the Act of March 3, 1901, c. 854, 31 Stat. 1225, District of Columbia Code, 1940 Ed., Sections 17-101.

STATEMENT OF CASE.

Disclosure of Application.

The subject-matter of Seagram's application relates to the art of testing, by human sensory reaction, samples of foods, beverages and like products intended for human consumption and having chemically-indefinable, sense-perceptible qualitative properties such as bite, body, odor and taste (F 4*, App. 12). The application discloses: **(a) a single sample method** for determining the lightness or heaviness of a given whiskey or like product (F 5, App. 12); **and (b) a paired-comparison method** for determining which of two whiskies or like products is preferred, or which has the least bite, or which tastes better, or which has the better odor (F 6, App. 13).

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*Finding of Fact No. 4.

The data obtained in the practice of either method are correlated by well-known procedures to evaluate the particular property tested (F 7, App. 13). As noted in finding 18 (App. 15-16), **Seagram's successfully uses** this method in determining:

(a) the formulas to be used in making distilled alcoholic beverages and the effect of formula changes;

(b) the methods to be employed in manufacturing distilled alcoholic beverages and the effect of any changes in such methods;

(c) the equipment to be used in the manufacture and storage of distilled alcoholic beverages; and

(d) how any product compares with a given standard or with other products, the differences there between being accurately evaluated.

Seagram's methods have been adopted and successfully used by others (F 19, App. 16).

Claims.

Claim 10 is broad enough to cover both methods, while the remaining claims 3-7 and 11-14 are limited to the paired-comparison method (F 17, App. 15). These claims are reproduced in the Appendix (6-9), but, for convenience, claim 10 is reproduced here as follows:

> 10. In the art of testing samples of beverages and the like, having chemically-indefinable sense-perceptible qualitative properties, such as bite, body, odor and taste, a method of obtaining, through human sensory reactions, substantially reproducible indications of qualitative properties comprising:
>
> (a) **preparing** blind test samples of *predetermined* temperatures, amounts and concentrations;
>
> (b) **submitting** at least one sample to each observer of a group large enough to reduce observation errors to allowable experimental limits and under uniform illumination conditions;

(c) causing each observer

(i) to subject the sample to the same sensory test for one particular indefinable, sense-perceptible qualitative property and

(ii) to indicate, within a *predetermined* range of time following the beginning of such test, his sensory reaction to the qualitative property tested,

the indications thus obtained from the group being correlatable in well-known ways to evaluate the property tested.

Claim 11 has the *preparing, submitting* and *causing* steps of claim 10, but calls for (a) a limited number of samples to be submitted successively to each observer, and (b) at least *two predetermined time intervals* in the causing step, one predetermined time interval between successive samples, and a predetermined judgment time interval following the last sample.

Claims 3-7 depend on claim 11. Of these: claim 3 specifies a sample amount of 4cc.; claim 4, judgment time of 5 to 8 seconds; claim 5, alcoholic beverage samples of 40° proof; claim 6, a temperature difference between samples not greater than .2° C; and claim 7, the specific order in which paired samples are submitted to successive observers. The specific values of amount, judgment time, proof and temperature specified in claims 3-6 are within the optimum ranges (F 12-14, App. 14-15).

Claims 12 and 13 are similar to claim 11, except that claim 12 requires submitting samples in pairs only, while claim 13 additionally includes a fourth step which involves correlating the indications to evaluate the property tested. Claim 14 depends on 13 and specifies the step of presenting samples of different color values under conditions which make them appear uniform in color.

Seagram's Predetermined Controls.

It will be noted that, among other limitations:

(a) all claims are limited to **four** *predetermined* controls; namely, predetermined sample amounts, temperatures and concentrations and a predetermined judgment time; and

(b) that claims 3-7 and 11-14 are additionally limited to a **fifth** *predetermined control* by calling for the testing of a second or succeeding sample within a predetermined time interval following the testing of the first or preceding sample.

To appreciate the true scope of Seagram's invention it is necessary to understand:

(a) that *in a paired comparison test* these controls are not only predetermined at the same value (F 11, 16, App. 14-15) but also predetermined at the same optimum range value (F 12-14, App. 14-15); and

(b) that *in single sample tests* where concentration, for example, may be varied (F 9(d), App. 14) the values of temperature, amount and time are predetermined as before, but the value of concentration is necessarily varied over the range being studied and this range may be below the optimum range as it is in a threshold test* and above it.

A more extended explanation of the manner in which these controls are predetermined and the reasons why they promote sensory response accuracy is given in the Supplement To Brief, to which attention is invited if the Court finds it desirable or necessary.

Patent Office Application Prosecution.

Seagram's application for the patent was prosecuted before the Patent Office Primary Examiner to a final rejection (App. 127) of all of its claims 3-7 and 10-14 on the grounds that: *(a) they were unpatentable over the prior art; and (b) they failed to define statutory subject-matter, that is to say, a subject-matter which can be patented under RS Section 4886* (Mar. 3, 1897, c. 391, Sec. 1, 29 Stat. 692; May 23, 1930, c. 312, Sec. 1, 46 Stat. 376; Aug. 5, 1939, c. 450, Sec. 1, 53 Stat. 1212; USC Title 35, Sec. 31).

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*For example, the threshold of taste is the smallest concentration of a substance that an individual can detect (App. 167, col. 1).

On appeal, the Patent Office Board of Appeals **reversed** the Primary Examiner's holding that claims 3-7 and 11-14 were unpatentable over prior art, but **otherwise affirmed** the Primary Examiner's action by holding (App. 146-153):

1. that only claim 10 is unpatentable over the prior art (App. 149); and
2. that all of the claims fail to define statutory subject matter (App. 149).

Established Issues in Seagram's 4915 Suit.

Seagram's Complaint (App. 2-5) offered **only two controvertible allegations** respecting the claims (App. 5) and these were: *(a) that claim 10 was patentable over the prior art; and (b) that claim 10 and the remaining claims 3-7 and 11-14, all define statutory subject-matter under Section 4886 RS.* The answer traversed these allegations and thus joined issue thereon. As to these established issues the proceedings is *de novo.*

Additional Answer Allegations.

The Complaint also alleged (App. 4) and the Answer admitted (App. 10) that claims 3-7 and 11-14 were found by the Board of Appeals to be allowable over the prior art. However, the Answer cited *new prior art* and **additionally alleged** (App. 10) that all claims: (*a*) *were indefinite in violation of RS Section 4888* (Mar. 3, 1915, c. 94, Sec. 1, 38 Stat. 958; May 23, 1930, c. 312, Sec. 2, 46 Stat. 376; USC Title 35, Sec. 33); *and* (*b*) *lacked invention over the newly cited art.*

Holdings On Additional Answer Allegations.

During trial the Commissioner attempted to introduce evidence supporting the additional Answer allegation that claims 3-7 and 11-14 lacked invention over the newly cited prior art (App. 6). Seagram's objected to this evidence on the **procedural** ground that there was no joinder of issue on this additional Answer allegation (App. 62-63). *The trial Judge sustained Seagram's objection and the Commissioner thereupon abandoned his attempt to prove it* (App. 63-64). Nevertheless the trial Judge found that both additional allegations were in issue (F 3, App. 11-12) and he made additional findings sustaining both of them (F 30-33, App. 17). *The propriety of these findings is questioned.*

Holding On Indefiniteness.

The trial Judge found **that Seagram's methods are sensitively accurate** because they enable a difference, ranging from extremely subtle to pronounced, to be determined and accurately evaluated (F 8, App. 13-14). He further found that **this sensitivity and accuracy is due to**: **(a)** the use of blind samples of the same predetermined temperature, amount and concentration, except where concentration is the variable being studied; **(b)** the testing of samples for a single qualitative property independent of their other properties; **and (c)** the limitation of judgment time to the same predetermined interval for all observers (F 9, App. 14).

Despite the foregoing findings, the trial Judge found *that the use of the term "predetermined" rendered the claims indefinite* (F 32-33, App. 17), *and these findings are questioned.*

Holding On Prior Art.

As evidence of prior art group tests, the Commissioner relies on the Food Industry's publication of March, 1941, defendant's Exhibit 1E (App. 163-175), and the Consumers' Union Report of April, 1941, defendant's Exhibit 1F (App. 177-179).

The Food Industry's publication deals in a general way with group tests wherein either one food sample or two food samples to be compared are either handed or mailed to individual housewives in their respective homes or to congregations of housewives who are asked to test single samples for preference, taste, etc., and to answer one or more questions concerning the qualitative properties of such products.

The Consumers' Union Report states that a squad of 40 persons made 800 tests of clam chowder and 534 tests of mushroom soup, comparing two samples in each test for preference and rating each sample as good, fair or poor.

The trial Judge **erroneously** found (App. 17) *that* judgment time is limited in these prior art tests (F 25); *that* Seagram's method is not inventively different from the methods described in these publications (F 30); *and that* the claims are unpatentable over the prior art (F 31).

It should be noted, however, that the allowability of the claims over the prior art is not questioned, if that art fails to employ the predetermined controls necessary for sensitively accurate results. *These findings, therefore, simply raise the question as to whether or not the prior art discloses:* (**a**) *that samples of predetermined temperature and amount were used; or* (**b**) *that use was made of a predetermined judgment time; or* (**c**) *that a second sample was tested within a predetermined time interval after the first.*

Seagram's asserts that there is nothing in these publications indicating such controls, while the Commissioner asserts that these specific predetermined controls are in the prior art, either expressly or inferentially, since it is a matter of common sense to use them (App. 57).

Holdings On Substitution And Sensitivity.

The trial Judge also found (App. 17), against specific evidence to the contrary, that prior art group tests: (a) can be substituted for applicant's method (F 26); and (b) are sensitive (F 27). These findings are questioned.

Holdings On Non Statutory Subject Matter.

The trial Judge found (App. 17) that Seagram's method as claimed is not an art within the meaning of that term, as used in Section 4886 RS, because: (a) *it is not within the so-called physical result rule as announced by the United States Supreme Court in the flour-milling case of Cochran* v. *Deener* (1877, 94 U. S. 780-787, 24 LE 139, 1877 CD 242); and (b) *it includes mental steps or operations* (F 28). He therefore additionally found that claims are *unpatentable as non statutory subject matter* (F 29). These findings are questioned.

STATUTES AND RULES INVOLVED.

The statutes and rules involved in this case are identified as follows:

(a) Sec. 4886 RS, USC Title 35, Sec. 31;
(b) Sec. 4888 RS, USC Title 35, Sec. 33;
(c) Sec. 4915 RS, USC Title 35, Sec. 63;
(d) Rule 8, Sections (b) and (c) of the Rules of Civil Procedure; and
(e) Rule 13, Section (a) of the Rules of Civil Procedure.

These statutes and rules are set out in the "Supplement to Brief" at the end of this brief.

STATEMENT OF POINTS.

1. **There Is No Basis Either For Finding That An Issue Was Joined On Defendant's Allegations That All Claims Are Indefinite And That Claims 3-7 And 11-14 Lack Invention Over The Prior Art Or For Making Any Findings On These Allegations.**

(Findings 3, 30, 31, 32 and 33.)

2. **The Term "Predetermined," As Used In Connection With The Factors Of Temperature, Amount, Concentration, And Time Does Not Render The Claims Indefinite.**

(Findings 32 and 33.)

3. **All Claims Distinguished Patentably From The Prior Art Because The Prior Art Does Not Employ The Controls Necessary For Sensitively Accurate Results.**

(Findings 25, 30 and 31.)

4. **The Prior Art Group Test Methods Cannot Be Substituted For Seagram's Method.**

(Finding 26.)

5. **The Prior Art Group Methods Are Not Sensitive.**

(Finding 27.)

6. **Seagram's Method Is An Art Within The Meaning Of Section 4886 RS.**

(Findings 28 and 29.)

7. **The Physical Result Rule Cannot Properly Be Interpreted To Exclude Seagram's Method.**

(Findings 28a and 29.)

8. **Seagram's Method Is Patentable Even If It Does Not Involve A Physical Effect Because Such Effect Is Not Necessary.**

(Findings 28a and 29.)

9. **Seagram's Method Is Patentable Even If It Does Involve Mental Steps Or Operations.**

(Findings 28b and 29.)

SUMMARY OF ARGUMENT.

I.

1. There was no joinder of issue on the additional Answer allegations respecting claim indefiniteness and lack of invention over prior art, because these additional allegations did not either (a) deny any corresponding allegations in the complaint or (b) set up an avoidance of or affirmative defense to the issues established by the Complaint allegations which were denied in the Answer.

2. There can be no proceedings, *de novo* or otherwise, where there are no issues.

3. These additional allegations in the Answer constitute an attempt to set up two new issues or causes of action in a manner not authorized by Section 4915 RS or by the Rules of Civil Procedure.

4. The filing of an application complying with the requirements of patent laws and the payment of the 30-dollar Government filing fee, entitled Seagram, *while the application was in the examining division,* to a full examination of the application and to a full opportunity to meet, by amendment or otherwise, any objection asserted against the claims.

5. It is unfair to Seagram to permit the Commissioner to assert entirely new objections against the claims for the first time in the District Court, where the opportunity to

meet these new objections, by amendment, is difficult and impractical if not impossible.

6. The proper procedure for this Court is to decide this appeal on the established issues and, if the decision be in Seagram's favor, then to authorize the Commissioner either to issue the patent or, if he thinks these new objections have merit, then to reopen the prosecution and give Seagram an opportunity to meet them.

II.

7. The term "predetermined" does not render the claims:

(a) *unclear* because it has the same meaning in the claims that it is given in recognized dictionaries;

(b) *excessively broad* because the trial Judge found that certain predetermined controls made Seagram's methods sensitively accurate and such controls are specified in the claims;

(c) *indefinite* where the disclosure of the application is adequate, and the adequacy of Seagram's disclosure is not questioned; and

(d) *indefinite* because Seagram's invention is not limited to the use of optimum range values for all factors in all tests.

III.

8. The claims distinguish patentably from the prior art because prior art group tests do not employ samples of predetermined temperature or amount, and do not use predetermined judgment times or predetermined time intervals between tests of successive samples.

9. Samples of predetermined temperature and amount are important factors, because small differences in either reduce the accuracy of the sensory response.

10. There is no evidence indicating that the prior art appreciated the fact that temperature and amount were important factors affecting the accuracy of the sensory response.

11. Defendant's evidence indicates, and plaintiff's evidence establishes the fact that, in prior art group tests, temperatures and amounts were not predetermined but were left up to individual control.

12. There is no evidence indicating that the prior art appreciates the fact that an observer's sensory response confusion increases progressively with an increase in judgment time.

13. The evidence establishes that prior art judgment time intervals were not limited but were left up to individual control.

14. There is no evidence indicating that, in prior art group tests, the second and all succeeding samples were required to be tested within a predetermined time after testing the first and all preceding samples, and the Commissioner has not heretofore asserted otherwise.

15. There is a complete absence of evidence indicating that, in prior art group tests, the specific optimum range values specified in the dependent claims 3-6 and 14, were employed.

IV.

16. The finding that prior art group test methods may be substituted for Seagram's method is not supported by the evidence, because the defendant introduced no evidence concerning such substitution while plaintiff's evidence directly establishes the contrary.

V.

17. The trial Judge's finding that prior art group methods are sensitive is not supported by the evidence, because defendant's evidence not only does not deal directly with sensitivity but actually indicates insensitivity, whereas plaintiff's direct evidence establishes the fact that such prior art group methods are insensitive.

VI.

18. Seagram's method involves a subject matter radically different from the subject's matter conventionally held to be non statutory.

19. Seagram's method is a patentable art within the scope of that word as defined in a number of important cases, and it is particularly within the "force of nature" rule of the U. S. Supreme Court in the Telephone Cases.

VII.

20. The interpretation that the physical result rule required a method to effect a permanent change in some material in order to be patentable is erroneous because it excludes other methods held patentable by the U. S. Supreme Court.

21. The physical result rule cannot be limited to permanent change but must be broadened to cover temporary activity or motion, and, when so broadened, includes Seagram's method.

22. The fact that a physical result is not necessary is now recognized.

23. A method claim is patentable statutory subject matter and complies with Section 4888 RS by being distinct, and with Section 4886 RS in setting forth a new and useful method which constitutes an art within the "force of nature" rule of the U. S. Supreme Court in the Telephone Cases.

IX.

24. Claims are unpatentable if they consist of mental steps only, or of mental steps in combination with *old* physical steps.

25. Claims are patentable where mental steps are combined with *novel* physical steps.

26. Seagram's method is patentable because it combines novel physical steps with mental steps.

ARGUMENT.

1. There Is No Basis For Finding That an Issue Was Joined on Defendant's Allegations That All Claims Are Indefinite and That Claims 3-7 and 11-14 Lack Invention Over the Prior Art or For Making Any Findings on These Allegations.

To set up an issue, the Rules of Civil Procedure require the Answer to deny the averments upon which the adverse party relies (Rule 8 (b)) or to set forth an avoidance or affirmative defense (Rule 8 (c)).

There was no joinder of issue on the additional Answer *allegation of indefiniteness* because it did not either: (a) deny any corresponding allegation in the complaint, there being no allegation therein respecting indefiniteness; or (b) set up any matter constituting an avoidance of or affirmative defense to either of the two issues established by the two controversial allegations asserted in the Complaint and denied in the Answer.

For the same reasons, there was no joinder of issue on the additional Answer allegation that all claims, except claim 10, lacked invention over the prior art. Seagram's objection does not go to the citation of additional prior art against claim 10 which stood rejected on prior art. The patentability of claim 10 over the prior art was an issue established by the Complaint and Answer, and Seagram agrees that this proceedings under RS Section 4915 is *de novo* **as to that issue.** Seagram's objection goes *to the assertion of no invention over prior art* against the remaining claims 3-7 and 11-14 **which stood allowed over prior art** and *to the assertion of indefiniteness* against all claims, because these were not established issues and there can be no proceedings, *de novo* or otherwise, where there are no issues.

These additional allegations in the Answer constitute an attempt to set up two entirely new issues or causes of action. We know of no authority permitting new issues or causes of action to be set up by the Commissioner in this way. They are not provided for in Section 4915 RS. Furthermore, Seagram asserts that the Commissioner is bound by his own holding that all claims, except claim 10, were allowable over the prior art. Consequently, he cannot assert these additional allegations by way of counterclaim under Rule 13(a) of the Rules of Civil Procedure, because that rule is limited to claims the pleader has against the opposing party when initially served.

The filing of Seagram's application, which duly complied with the requirements of the patent law and the payment of the thirty-dollar government filing fee, entitled Seagram, while the application was in the Examining Division, to a full examination and to a full opportunity to meet, by amendment or otherwise, any objection asserted against the claims. But the record here shows that the Commissioner waited until this suit was filed **to assert for the first time** that all claims were indefinite, and that some claims which stood allowed, over the prior art relied on by him in the Patent Office, were nevertheless unallowable over entirely new prior art.

We assert it is **unfair to Seagram** to permit the Commissioner to assert entirely new objections against the claims for the first time in the District Court, where the opportunity to meet these new objections by amendment is difficult and impractical, if not impossible. We do not mean to say that, if the objections have merit, the Commissioner should be barred from asserting them. The **proper procedure**, we believe, is for this Court to decide this appeal on the established issues, and if the decision be in Seagram's favor, then to authorize the Commissioner either to issue the patent or, if he thinks these new objections have merit, then to reopen the prosecution and give Seagram an opportunity to meet them in the light of this decision. We see no reason why this cannot be done under Section 4915 RS.

The trial Judge was, therefore, correct in sustaining Seagram's objection to the introduction of evidence on these additional allegations in the Answer, but his later finding that an issue was joined on such allegations (F 3, App. 11-12), was erroneous and should be reversed. Similarly his findings that all claims are indefinite (F 32-33, App. 17), and that claims 3-7 and 11-14 lack invention over the prior art (F 30-31, App. 17), were erroneous and should be reversed.

2. The Term "Predetermined" as Used in Connection With the Factors of Temperature, Amount and Concentration, and Judgment Time Does Not Render the Claims Indefinite.

At the outset it should be understood that the term "indefinite," when applied to claims, *means excessive breadth per se* without regard to prior art. In other words, an indefinite claim is an excessively broad claim not because it reads upon prior art but because it is either: unclear in meaning; or, if clear, it goes so far beyond the boundaries of the invention that it fails to define the essentials thereof.

The term "predetermined," as used in the claims, does not render them **unclear**. *Predetermined is defined in Webster's New International Dictionary, 1929 Edition, page 1693, as meaning "to determine beforehand."* It has the same meaning in the claims. The claims call for "samples of predetermined temperatures, amounts and concentrations," and this obviously means that the temperature of each sample is determined in advance of the performance of the methods defined by the claims. The claims also require each observer, after making a test, to announce or otherwise indicate his sensory reaction to the qualitative property tested within a predetermined time. Obviously, this means that the judgment time specified by the claims must be determined in advance of the performance of the methods specified by such claims. *In all cases,* *therefore, the factors specified as predetermined factors in the claims are factors which are determined beforehand.*

The term "predetermined," as used in the claims, does not make the claims go so far beyond the boundaries of the invention that they fail to define the essentials of the invention. In so far as the word "predetermined" is concerned, the boundaries or the essentials of the invention are clearly set forth in Findings of Fact Nos. 8 to 17 (App. 13-15). Finding 9 states that applicant's methods are sensitively accurate because they require: blind samples; samples of the same predetermined temperature and amount; samples of the same predetermined concentration, except where this factor is the variable being studied; the testing of samples for one qualitative property independently of its other properties; and the use of a predetermined judgment time. *These factors, which make applicant's methods sensitively accurate, are contained in all of the claims here involved.*

The foregoing should be sufficient to show that the term "predetermined" as used in connection with the factors listed does not render the claims indefinite. *However, we note that,* **where the disclosure of an application is adequate,** *the use of words such as "predetermined length" in a claim does not render the claim indefinite, ex parte* E. Biddle Conklin, POBA 1930, 11 PQ 151. The reasoning behind that decision applies here.

Finally we note that Seagram's invention is not limited to the use of optimum range values for all predetermined controls in all tests. This is shown in this brief at page 5, wherein we point out that, in all single sample tests, a control factor, such as concentration, may be varied over predetermined values ranging below or above the optimum range.

The trial Judge's findings (App. 17) that the claims are indefinite because of the term "predetermined" (F 32), and unpatentable for failing to meet the definiteness requirements of Section 4888 RS (F 33), were therefore erroneous and should be reversed.

3. All Claims Distinguish Patentably From The Prior Art Because The Prior Art Does Not Employ The Controls Necessary For Sensitively Accurate Results.

Seagram concedes that the methods disclosed in defendant's Exhibits 1E and 1F employ some of the predetermined controls set forth in the claims, such as blind samples of predetermined concentration, but asserts that they do not employ: (a) samples of predetermined temperature; or (b) samples of predetermined amount; or (c) a predetermined judgment time, or (d) the testing of successive samples within a predetermined time interval.

SAMPLES OF PREDETERMINED TEMPERATURE.

Finding 11 (App. 14) shows that temperature is an important control factor. Scofield points out that a temperature difference as small as 2° F. between otherwise identical samples would not be noticed by the observers conducting a test as a temperature difference, but would be noticed as a difference in taste (App. 22-30). *This surprised the trial Judge,* **who thought** *that all he would notice would be a difference in temperature* (App. 28) **and who found** *that a small difference in temperature between the samples submitted to one observer or to different observers reduced the accuracy of the sensory response* (F 11, App. 14).

There is **no evidence** indicating that the prior art appreciated the fact that temperature was an important factor.

Defendant's Exhibits 1E and 1F do not state the temperature at which any one sample was *consumed* by any one participant, or that all participants *consumed* all samples at the same temperature, or that the temperature of the samples *at the time of consumption* was in any way predetermined.

The Commissioner concedes this, but says that common sense would dictate the use of predetermined sample temperatures (App. 57). The answer to this is contained in defendant's Food Industry Exhibit 1E (App. 163-175). It is largely concerned with the important factors and pitfalls to be observed or avoided in conducting group tests and yet it fails utterly to mention or otherwise indicate that temperature is in any way an important factor.

According to the Food Industry Exhibit 1E, the directions most generally given to the housewives participating in the test are: to operate in their homes under normal conditions (App. 170, col. 2); to approximate normal use (App. 172, col. 1); to use the product samples in the regular way (App. 172, col. 3). *Certainly judicial notice can be taken of these facts:* **that** the average housewife in normally serving a product, such as soup, for example, does not use a thermometer or any other device to insure that each person eating the soup shall consume it at substantially the same temperature; **that** some consumers prefer soup piping hot, while others want it relatively cool; **and that** such variations, according to finding 11 (App. 14), reduce the accuracy of sensory response.

Aside from defendant's Exhibits, **the only evidence**, concerning the sample temperatures employed in the prior art, is found in Scofield's testimony and Shakman's affidavit. *Scofield testifies directly that, in prior art group tests, temperature is left up to individual control* (App. 43) *and Shakman affirms that, in individual taste tests, "the tasters open the samples and consume them at any temperature * * * as suit their fancy and report their reactions," and that this "method of taste testing is in common use all over the country"* (App. 130).

SAMPLES OF PREDETERMINED AMOUNT.

Amount is an important factor to the same extent as temperature, and the trial Judge made the same finding on amount as he did on temperature (F 11, App. 14).

There is **no evidence** indicating that the prior art considered amount to be an important factor.

Defendant's Exhibits 1E and 1F make no mention whatsoever of sample amount, although Exhibit 1E is largely concerned with important factors.

Defendant, however, relies on Cowan's article in Exhibit 1E (App. 168, col. 2) which states, "Again, the size of sample necessary for stable results depends on the contrasts in the product's characteristics and the number of testers." This phrase "size of sample" refers to the size of the group conducting the test. *The paragraph containing this statement, and the paragraph following in Cowan's article, makes clear that the size of sample or the number of people participating in the test may be less where differences are pronounced than where the differences are subtle.* **In this field, the expression "size of sample" is used to refer to the number of people participating in the test.** Thus Bogert uses the same expression (App. 174, col. 2) where he states, "* * * if all the members of the jury voted by guess, on the basis of pure chance, the votes for the two products would be equal within the limits of the probable error due to the size of the sample * * *."

The **only other evidence** of amount control in the prior art group tests is found in Scofield's testimony and Shakman's affidavit. Scofield testifies directly that the amount of prior art samples is left up to individual control (App. 43, 57-58), while Shakman says that the "tasters open the samples and consume them * * * in such quantities as suit their fancy * * *" (App. 130).

PREDETERMINED JUDGMENT TIME.

The trial Judge found that "it is important to limit judgment time to minimize observer's confusion which increases progressively with an increase in the judgment time" as shown by plaintiff's Exhibit 4 (F 16, App. 15).

This finding is based on Scofield's testimony (App. 40-41) concerning a series of tests in which observers were given either salted or unsalted samples of distilled water and asked to determine presence or absence of salt. The judgment time in each series differed, ranging from 5 seconds up to 60 seconds. *Where judgment time was limited to 5 seconds, the responses were 95 per cent correct. When judgment times were progressively higher, the correct responses were progressively lower, reaching a minimum of 67 or 68 per cent at 60 seconds.* Plaintiff's Exhibit 4 graphically shows the result of this test (App. 161).

There is **no evidence** indicating that the prior art appreciated the fact that observer's confusion increased progressively as judgment time increased.

Defendant's Exhibits 1E and 1F make **no mention** whatsoever of the use of a predetermined judgment time intervals, although Exhibit 1E prefers to have one sample tested one day and a second sample tested one or two days later (App. 174, col. 3).

Arnold refers to four methods of testing (App. 171-172) including a spot test in which "both samples were given the housewives for immediate testing and her preference was recorded on the spot" but Arnold and others considered a spot test to be undesirable (App. 172). But even in the spot test, the judgment time interval is not predetermined.

The defendant, however, relies on Cowan's statement that the "**spontaneous** reactions of amateurs reflect market preferences more accurately" (App. 168, col. 1). Defendant asserts that spontaneity of response fully meets the predetermined time limitations of the claims, but obviously it does no such thing. There is no predetermination of any sort in a spontaneous reaction. A spontaneous reaction is one in which time is uncontrolled, and if time were controlled the reaction would not be spontaneous. Spontaneous is defined in Webster's New International Dictionary, 1929 Edition, page 2018, as "proceeding from natural feeling, temperament or disposition, or from a native internal proneness, readiness or tendency, without constraint." *The use of a predetermined judgment time interval places the observer* **under constraint** because it requires each observer to announce his judgment within a time interval, which was determined in advance of the test, and a failure to do so results in the rejection of the observer's indication regardless of what the result may be.

The **only evidence** of any prior art judgment time intervals, aside from defendant's Exhibits 1E and 1F, is represented by Scofield's corroborated testimony to the effect that judgment time is not limited but is left up to individual control (App. 44, 59-60).

PREDETERMINED TIME INTERVAL BETWEEN SAMPLES.

The Patent Office Board of Appeals allowed all claims except claim 10 over the prior art because they require a second and all succeeding samples to be tested within a predetermined time after the testing of the first and all preceding samples (App. 149). The trial Judge made no specific finding on this time interval, but reversed the Patent Office Board of Appeals by holding claims 3-7 and 11-14 unpatentable over the prior art; hence we assume that this holding raises a question as to whether or not prior art shows a predetermined time interval between samples.

There is **no evidence** indicating that the prior art employed a predetermined time interval of this character, and the Commissioner has not heretofore asserted otherwise.

ADDITIONAL LIMITATIONS OF DEPENDENT CLAIMS (App. 6-9).

Claims 3-6 depend from claim 11 and claim 13 depends from claim 14. Of these: claim 3 is limited to an alcoholic beverage sample approximating 4 cc in amount; claim 4 to a judgment time of 5 to 8 seconds; claim 5 to an alcoholic beverage sample of 40° proof; claim 6 to alcoholic beverage samples which are maintained within a temperature range of .2° C. or .36° F.; and claim 14 requires, where the color values of samples differ, the presentation of such samples under conditions which make them appear uniform in color.

There is **no evidence** that these predetermined and specific limitations are found in the prior art, and we may add *first,* that they are based on values stated in the application and *second,* that findings 12-13 (App. 14-15) state that the sample temperatures and the sample amounts described in the application are within their respective optimum ranges.

* * * * * * * * * *

In view of the foregoing, the trial Court's findings that the judgment time is limited in prior art tests (F 25, App. 17), that the method defined in the claims at bar is not inventively different from the methods described in the defendant's Exhibits 1E and 1F (F 30, App. 17), and that claims 3-6 and 10-14 are unpatentable over the prior art (F 31, App. 17), were erroneous and should be reversed.

4. Prior Art Group Test Methods Cannot Be Substituted For Seagram's Method.

The trial Judge found *that prior art group test methods can be substituted for Seagram's methods* (F 26, App. 17).

This finding is not supported by the evidence. Defendant introduced no evidence concerning the substitution of prior art methods for Seagram's methods. Plaintiff introduced evidence establishing the fact that prior art methods could not be substituted for Seagram's method, and this evidence is found in Scofield's corroborated testimony, Althausen's affidavit and Shakman's affidavit.

Scofield testified directly that the prior art methods **cannot be substituted** for Seagram's methods (App. 44).

Althausen affirms that he was commissioned by the Quartermaster Corps to introduce food testing procedures in its Subsistence Research & Development Laboratory at Chicago that would contribute to scientific flavor control, that he made a survey of the more progressive companies of the land concerned with the production of foods and flavors, and that this survey reveals that *Seagram's methods are* **new and unique** *to the food and beverage industries and constitute the only methodology that is reliable in the entire field of flavor estimation and standardization* (App. 15).

Shakman states that Seagram's methods produce accurate and reproducible data as to preferences in the realm of taste, odor, flavor, palatability; that Pabst Brewing Company is adopting Seagram's methods for use in different parts of the country, and *that such Company has not considered the conventional tasting methods sufficiently reproducible to try country-wide testing* (App. 130).

This evidence makes clear that the trial Court's finding, that prior art group test methods could be substituted for Seagram's methods (F 26, App. 17), is wholly unsupported by the evidence.

5. **Prior Art Group Methods Are Not Sensitive.**

The trial Court found that prior art group methods *are sensitive* and produce data which is actually used for evaluation purposes (F 27, App. 17). **This finding is not supported by the evidence.**

Defendant's Exhibits 1E and 1F do not say directly that prior art group test methods are either sensitive or insensitive. *However, they indicate insensitivity by virtue of the large groups of testers employed or recommended.* The disadvantages of using either a small group of trained or experienced judges is mentioned by Platt (App. 165, col. 1), or of a committee or a panel of executives is mentioned by Cowan (App. 166, col. 3). On the other hand, Cowan refers to the selection of a large group (App. 167, col. 2) and gives an example of 313 testers (App. 168, col. 2); Arnold refers to a committee of 750 women scattered through eighteen midwestern states (App. 170, col.

1), and Bogert mentions a panel of 3,500 families (App. 172, col. 2) and gives a hypothetical test of 500 comparisons (App. 173, col. 1).

The use of large groups obviously indicates insensitivity. This is further indicated: by Cowan, who states that where 62% out of 98% of the testers prefer one product over another, the real advantage of that one product is at least 8% *although probably more nearly 25%* (App. 168, col. 3); and by Platt, who says that we are dealing with probabilities and that we can feel much more confident of the reliability of conclusions only when results check and repeated tests are consistent (App. 175, col. 3). Scofield says large groups must be used in the prior art methods and that Seagram's uses relatively small groups (App. 45).

Scofield testified directly that prior art group test methods **are highly insensitive,** whereas Seagram's psychometric method is very sensitive (App. 44), being capable of detecting a difference between two gins which were identical except that one contained single distilled city water and the other twice distilled city water (App. 45). *The prior art methods measure generalized properties, whereas the Seagram psychometric method measures specific properties under highly refined conditions* (App. 45-46). Prior art methods can determine differences between products (App. 46), but not sensitively, and while prior art group test data are used for evaluation purposes, such data are not considered sensitive or reliable (App. 45-48).

It is clear, therefore, that this finding of prior art method sensitivity is not supported by the evidence.

6. Seagram's Method Is An Art Within The Meaning Of Section 4886 RS.

Findings 28 and 29 state that Seagram's method, as claimed, is not an art, and that all claims are unpatentable as non-statutory subject-matter. The fact that Seagram's method is a patentable art can best be shown by considering *what is not an art,* and *what is an art.*

WHAT IS NOT AN ART?

Representative subjects-matter which have heretofore been held to lack a statutory basis, are illustrated by the following:

(a) bookkeeping and business systems;
(b) bare ideas or intellectual notions;
(c) mathematics; and
(d) use of data.

It will be clear that Seagram's method claims constitute a subject-matter of a radically different nature than the non-statutory matters above illustrated.

WHAT IS AN ART?

In considering what constitutes an art, within the purview of Section 4886 RS, we propose to show that the word "art" or "process" has been variously defined in a number of important cases, and in each case the definition employed applies to the present case.

The *hide-bating* case of Rohm, *et al.*, v. Martin Dennis Co. (1918), DC D NJ 263 F. 106, treats at length with the word "process" and the definitions of it given in the *dictionary; in the 4th edition of Walker on Patents;* and in the *opinions* of the U. S. Supreme Court in the *flour-milling case* of Cochran v. Deener, 94 U. S. 780, 788, 24 L. Ed. 139; the *fatty acid case* of Tilghman v. Proctor, 102 U. S. 707, 728, 26 L. Ed. 279; and the *coal car case* of Winans v. Denmead, 56 U. S. (15 How.) 330, 340, 14 L. Ed. 717. This Court defines an art or process as follows:

> "A process is not a machine or thing or result. It is a mode or method of operation or action employed in producing a thing or result."

Certainly this definition applies to Seagram's method. As claimed, Seagram's method constitutes a mode of operation or action employed in producing a result.

In the *belt pulley case* of Risdon Iron v. Medart, 158 U. S. 77, 39 L. Ed. 899, the United States Supreme Court also reviewed a large number of cases, including *the English blast furnace case* of Househill Coal v. Neilson, 1 Webster Pat. Cas. 673, *the telegraph case* of O'Reilly v. Morse, 56 U. S. (15 How.) 61, 62, 14 L. Ed. 601; *the annealed wheel case* of Mowry v. Whitney, 81 U. S. (14 Wall.) 620, 20 L. Ed. 860; *the flour milling case* of Cochran v. Deener, 94 U. S. 780, 788, 24 L. Ed. 139; *the fatty acid case* of Tilghman v. Proctor, 102 U. S. 707, 728, 26 L. Ed. 279, *and the beer preserving case* of New Process Fermentation v. Maus, 122 U. S. 413, 30 L. Ed. 1193. It concluded that in all of them:

> "the process was either a chemical one, or consisted of one of the agencies of nature for a practical purpose."

This definition likewise applies to Seagram's psychometric method because it uses at least one of the agencies of nature for a practical purpose.

In the *"voice current" Telephone Cases,* 126 U. S. 1, 31 L. Ed. 863, the **U. S. Supreme Court,** in holding the extremely broad electrical voice current claim valid, **noted that, in this way of transmitting speech, electricity, one of the forces of nature, is employed; but this force left to itself will not do what is wanted.** The Court, thereupon, gave this extremely broad definition of the word art:

> "the art consists in so controlling the force as to make it accomplish the purpose."

Certainly this definition applies to Seagram's claims. A reference to the telephone analogy referred to in the Supplement To Brief (p. 43), makes clear that, in Seagram's method, certain forces of nature are involved in the operation of the human sensory system, and these forces are so controlled as to make them accomplish a sensitively accurate measurement of specific qualitative properties.

In the *animal tissue case* of Ellis v. Coe (1941), DC DC 49 PQ 232, the District Court considered, within the purview of Section 4886 RS, a method for determining a characteristic of living animal tissue wherein a pair of dissimilar electrodes are placed against the skin of the human body, at spaced points, and **the human body acts to set up an electrical effect or potential,** the measurement of which constitutes a measure of a characteristic of the body tissue involved. In fact, this Court took the definition of the word "art" from the Telephone Cases and redefined it as follows:

> "The art defined by method claims 15, 16 and 17 consist in controlling the forces of nature to effect a new result, and to this end a characteristic of tissue is transformed to another physical form in which it may be quantitatively measured."

It is equally obvious that *the art defined by Seagram's method claims consist in controlling the forces of nature to effect a result, and to this end a qualitative property of a food or beverage is transformed to another form (data) in which it may be quantitatively measured.*

In the *electrical instrument case* of *in re* Weston, decided by the Court of Appeals of the District of Columbia, 17 App. D. C. 431, 1901 CD 290, this Court reviewed a large number of cases and then listed two classes of patentable processes and one class of unpatentable processes. Defendant referred to this case in its brief below, saying, *"It is believed to be indisputable that the method or process set forth in the claims at bar fall into the first class or category.* This class reads as follows:

> "* * * first, that processes involving a chemical or other elemental action, if new and useful, are patentable; * * *."

Findings 28 and 29, therefore, cannot be sustained.

7. The Physical Result Rule Cannot Properly Be Interpreted To Exclude Seagram's Method.

Finding 28a states, in effect, that Seagram's method is not patentable because it does not fall within the so-called physical result rule.

The physical result rule, as announced by the U. S. Supreme Court in the flour-milling case of Cochran v. Deener (1877) 94 U. S. 780-787, 1877 CD 242, has been **erroneously** *interpreted* as holding a process to involve:

(a) *statutory subject matter* if it acted on some material, and, in acting on that material, permanently changed it by bending, pulverizing or chemically altering it; and

(b) *non-statutory* subject matter if it failed to so deform the material.

We say this interpretation is erroneous because it excludes the Telephone, Submarine, Bullock and other cases. If the rule be broadened to include these cases, then it includes Seagram's method.

In the Telephone Cases (1888), 126 U. S. 1, 1888 CD 321, the Supreme Court held valid a process claim covering the transmission through an electrical conductor of an electrical voice current. *Here the only thing that can be viewed as a physical effect is the undulating electrical voice current* because the claim involved refers only to the transmission of an undulating electrical voice current.

In the Submarine Case (Submarine Signal Corp. v. General Radio, 1926, DC D. Mass. 14 F. 2d 178), the Court held valid a claim relating to the measurement of distance by measuring the time required for a sound wave to leave the sending point, move to and strike against a remote object and then reflect back to the sending point. *The only things that can be interpreted as constituting a physical effect are the electrical impulses and the sound vibrations involved in the claim,* which covered:

(a) creating an electrical impulse A;

(b) transforming the electrical impulse A into a corresponding sound vibration;

(c) directing that sound vibration across space against a remote object;

(d) transforming the sound reflected back to the sending station into a corresponding electrical impulse B; and

(e) measuring the elapsed time between the beginnings of these electrical impulses A and B.

In the Bullock case (Bullock Mfg. Co., *et al.* v. Crocker Wheeler Co., 1905, CC. D. N.J. 141 Fed. 101), the invention related to a method of changing the speed of an electrical motor. *Here again there was no permanent change involved. Nothing was deformed permanently, bent permanently, or altered permanently; only the motor speed was changed because the claim covered:*

(a) the use of three supply wires 1, 2 and 3, so arranged that one pair 1 and 2 provided a low voltage, the second pair 1 and 3 provided an intermediate voltage, and the third pair 2 and 3 provided a high voltage; and

(b) the connection of the motor to one pair for one speed and to either of the other pairs for either of two more different speeds.

The Court, in the Bullock case, at 141 Fed. 109, applies what may be termed the "force of nature" ruling in the Telephone cases, by saying:

> "In each of the claims now under consideration, the method therein described reveals an art, or process, which consists in so controlling the electric force as to make it accomplish a new result not theretofore secured."

Under these circumstances we assert that the physical result rule cannot be limited to permanent change in a material. *If it is to stand, it must be broadened to cover* *temporary activity or motion*. **When broadened** sufficiently to include the undulating electrical voice current of the Telephone claim, the electrical impulses and sound vibrations of the Submarine claim, and the change in motor speed of the Bullock claim, then *it necessarily includes the electrical or electro-chemical impulses of the human sensory system involved in Seagram's claims.* From a physical effect standpoint there is absolutely no difference between the flow of an electrical current over a wire and the flow of an electrical or electro-chemical current over a person's nerves.

Accordingly, it is impossible to justify findings 28a and 29, and they should be reversed.

8. **Seagram's Method Is Patentable Even If It Does Not Involve A Physical Effect Because Such Effect Is Not Necessary.**

The *interpretation* that the physical result rule of the flour milling case of Cochran v. Deener, *supra,* required a patentable method to effect a *permanent* change in some material, is criticized by Stringham in his book "Patent Claims," Volume 1, 1931 Edition. Stringham says, at page 310, under Section 5170:

> "So far as concerns any rule that process must involve physical result, we can say that some physical result is achieved when an electric current flows over a wire or *a set of human nerves*. The term 'physical result' seems to provide no useful test. Claims are regularly allowed for electrical processes and are sometimes allowed for processes involving mental activity."

On page 311, under Section 5170, Stringham, referring to Judge Schoonmaker's statement respecting physical result in the case of Johnson v. Duquesne Light Co., D. C. Pa. 29 F. 2d 784, stated:

> "It will be noted at once that Judge Schoonmaker's reasoning in the Johnson case would have led to the holding of Bell's telephone patent as invalid. The soundness of this requirement for a physical result from a patentable process may be seriously questioned. *Since the Telephone Cases it is difficult to maintain the position that there must be a physical result before a process patent can be sustained.* **Only in a rather far-fetched sense is there any physical result in the operation of a telephone.** If the expression 'physical result' is to be given so extreme a meaning as to include the operation of the telephone, there is also a physical result flowing from each of man's thinking activities."

In the *hydraulic motor case* of *in re* Ernst, *et al.*, the Patent Office Board of Appeals had ruled as follows:

> "* * * Further, the alleged method does not in any sense, operate upon material to be transformed into a different state or thing, such as required by the accepted definition of a true method, whether mechanical or chemical, Cochran v. Deener, 94 U. S. 780 * * *."

On Ernst's appeal, the CCPA (22 PQ 28, 71 Fed. 2d 169, 21 CCPA 1235, 449 OG 507, 1934 CD 595) refused to follow the physical result rule, saying:

> "In so far as the language above quoted implies that a valid method claim requires that it relate to the treatment of some material, we are not in accord therewith. While the decision in the case of Cochran v. Deener, 94 U. S. 780, may seem to support such a holding, later decisions of the Supreme Court are not so limited. Such a decision is the case of Dolbear v. American Bell Telephone Company, 126 U. S. 1."

The fact that a patentable method no longer requires material to be treated has been recognized by the Patent Office Board of Appeals in *the artificial fever case* of *ex parte* Kettering, *et al.*, 35 PQ 342, *the glow discharge tube case* of *ex parte* Specht, 35 PQ 470, *and the oxidation stabilizing case* of *ex parte* Kharasch, 39 PQ 123.

Finally, we note that the various definitions of the word "art" as discussed in this Brief under the heading "What Is An Art" (Br. 27-30), do not require the production of a physical effect or result. *Our position, therefore, is, that Seagram's method claims are patentable statutory subject matter because they comply:* (a) *with Section 4888 RS by being distinct;* and (b) *with Section 4886 RS by setting forth a new and useful method which constitutes an art within the "force of nature" rule of the U. S. Supreme Court in the Telephone Cases supra.*

Findings 28(a) and 29 are not justified.

9. Seagram's Method Is Patentable Even If It Does Involve Mental Steps Or Operations.

Finding 28b states that Seagram's method is not patentable because it involves mental steps or operations. *A claim which involves a mental step or operation is not unpatentable per se.* This can be shown by referring to prior cases holding some claims involving mental steps unpatentable and other claims involving mental steps patentable, and by distinguishing between these two classes of cases.

Unpatentable Claims Involving Mental Steps.

In the *pump pressure case* of *ex parte* Toth and Nutter (1944), 63 PQ 131, the Board of Appeals held unpatentable a claim involving *old physical steps* plus unpatentable mental steps such as looking at a pressure gauge and calculating a correction.

In the *heat exchanger case* of *ex parte* Appeal 467, reported in the September, 1944, issue of the Journal of the Patent Office Society, at page 636, the Board of Appeals held unpatentable a claim involving *old installing and measuring steps* which produce data, and *the new mental step of using that data* in a particular way. As we have previously pointed out, use of data is unpatentable *per se.*

In the *oil-bearing sand case* of *ex parte* Appeal 48,653, reported in the July, 1945, issue of the Journal of Patent Office Society, at page 55, the Board of Appeals held unpatentable a claim involving *old physical steps* plus the mental step of drawing conclusions from the result of the physical steps.

In the *counterbalancing engine shaft case* of Don Lee, Inc. v. Walker, 9th CCA 1932, 61 F. 2d 58, a method of counterbalancing an engine main shaft was held invalid because it was not an art within the meaning of Section 4886 RS. The Court treated this case as comprising nothing more than a mathematical formula, and mathematics cannot be patented.

In the *oil well obstruction case* of Halliburton Oil Well Cementing Co. v. Walker, *et al.*, 9th CCA 1944, 146 Fed. 2d 817, the Court treated two method patents as involving *mental steps only* and held that these mental steps, even if novel, are not patentable.

In the *fiberboard case* of *in re* Heritage, CCPA 1945, 150 Fed. 2d 554, 35, the Court found *that the only feature which is relied on for patentable novelty is the mental process of making a selection of the amount of coating material to be applied to a board,* and held that a purely mental act is not the proper subject matter for protection under the patent statutes.

PATENTABLE CLAIMS INVOLVING MENTAL STEPS.

The Patent Office Board of Appeals has repeatedly held that method claims are **novel and patentable** where they involve mental and novel physical operations. In this respect, attention is invited to *the sand core case* of *ex parte* Lewis & Horner (1940), 48 PQ 141, *the golf club case* of *ex parte* Baymiller & Vose (1945), 68 PQ 403, and *the flaw detector case* of *ex parte* Barnes and Keevil (1946), 71 PQ 211. The patentable method *in the sand core case* involved a mental computation step, in *the golf club case* several mental steps, including a calculating step, and *in the flaw detector case* a mental observation step.

It is a matter of elementary patent law that a novel process, which may be entirely performed by hand, constitutes patentable subject matter. Yet, any manually performed process necessarily involves one or more mental operations. For example, if a manually performed process involves a hand-squeezing step it cannot be performed without participation by the mind which controls the hand that does the squeezing.

MENTAL CASES DISTINGUISHED.

In the first class of cases the method may consist of mental steps alone or in combination with *old* physical steps. In either event, the claim is unpatentable even if the mental steps are novel. *In the second class of cases, mental steps are combined with novel physical steps and, where this is so, the claims are uniformly held patentable.*

The present case falls within the second class. Here, we have a three-step method embracing:

1. the *physical* operations involved in preparing samples of *predetermined and* **novel** characteristics;
2. the *physical* operations involved in submitting such samples to the observers; and
3. the *physical and mental operations* involved in causing such observers to test the samples under *predetermined and* **novel** time limitations.

Findings 28(b) and 29 are not justified.

CONCLUSION.

We believe that this Court should *first,* find that each of the claims 3-7 and 10-14 constitute a statutory subject matter which is patentable over the prior art, *second,* reverse the judgment of the lower Court and *third,* direct the lower Court to enter, in accordance with the complaint's prayer for just relief (App. 5), a judgment for the appellant Seagram which authorizes the Commissioner of Patents either to issue a patent or to reopen the prosecution and give Seagram an opportunity to avoid the objection of indefiniteness, in the event this Court concludes there is, or may be, any merit to that objection.

Respectfully submitted,

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SUPPLEMENT TO BRIEF.

U. S. Code, Title 35, Patents.

§ 31. INVENTIONS PATENTABLE.

Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, * * * may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor. (R. S. § 4886; Mar. 3, 1897, ch. 391, § 1, 29 Stat. 692; May 23, 1930, ch. 312, § 1, 46 Stat. 376; Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212.)

DERIVATION.

Act July 8, 1870, ch. 230, § 24, 10 Stat. 201.

§33. APPLICATION FOR PATENT; DESCRIPTION; SPECIFICATION AND CLAIM.

Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; * * * and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. * * * (R. S. § 4888; Mar. 3, 1915, ch. 94, § 1, 38 Stat. 958; May 23, 1930, ch. 312, § 2, 46 Stat. 376.)

DERIVATION.

Act July 8, 1870, ch. 230, § 26, 16 Stat. 201.

§ 63. BILL IN EQUITY TO OBTAIN PATENT.

Whenever a patent on application is refused by the Board of Appeals * * * the applicant, unless appeal has been taken to the United States Court of Customs and Patent Appeals, and such appeal is pending or has been decided, in which case no action may be brought under this section, may have remedy by bill in equity, if filed within six months after such refusal or decision; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention, as specified in his claim or for any part thereof, as the facts in the case may appear. And such adjudication, if it be in favor of the right of the applicant, shall authorize the commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication and otherwise complying with the requirements of law. In all cases where there is no opposing party a copy of the bill shall be served on the commissioner; and all the expenses of the proceedings shall be paid by the applicant, whether the final decision is in his favor or not. In all suits brought hereunder where there are adverse parties the record in the Patent Office shall be admitted in whole or in part, on motion of either party, subject to such terms and conditions as to costs, expenses, and the further cross-examination of the witnesses as the court may impose, without prejudice, however, to the right of the parties to take further testimony. The testimony and exhibits, or parts thereof, of the record in the Patent Office when admitted shall have the same force and effect as if originally taken and produced in the suit. (R. S. § 4915; Feb. 9, 1893, ch. 74, § 9, 27 Stat. 436; Mar. 2, 1927, ch. 273, § 11, 44 Stat. 1336; Mar. 2, 1929, ch. 488, § 2 (b), 45 Stat. 1476; Aug. 5, 1939, ch. 451, § 4, 53 Stat. 1212.)

DERIVATION.

Act July 8, 1870, ch. 230, § 52, 16 Stat. 205.

Rule 8. General Rules of Pleading.

(b) DEFENSES; FORM OF DENIALS. A party shall state in short and plain terms his defenses to each claim asserted and shall admit or deny the averments upon which the adverse party relies. If he is without knowledge or information sufficient to form a belief as to the truth of an averment, he shall so state and this has the effect of a denial. Denials shall fairly meet the substance of the averments denied. When a pleader intends in good faith to deny only a part or a qualification of an averment, he shall specify so much of it as is true and material and shall deny only the remainder. Unless the pleader intends in good faith to controvert all the averments of the preceding pleading, he may make his denials as specific denials of designated averments or paragraphs, or he may generally deny all the averments except such designated averments or paragraphs as he expressly admits; but, when he does so intend to controvert all its averments, including averments of the grounds upon which the court's jurisdiction depends, he may do so by general denial subject to the obligations set forth in Rule 11.

(c) AFFIRMATIVE DEFENSES. In pleading to a preceding pleading, a party shall set forth affirmatively accord and satisfaction, arbitration and award, assumption of risk, contributory negligence, discharge in bankruptcy, duress, estoppel, failure of consideration, fraud, illegality, injury by fellow servants, laches, license, payment, release, res judicata, statute of frauds, statute of limitations, waiver, and any other matter constituting an avoidance or affirmative defense. When a party has mistakenly designated a defense as a counterclaim or a counterclaim as a defense, the court on terms, if justice so requires, shall treat the pleading as if there had been a proper designation.

Rule 13. Counterclaim and Cross-Claim.

(a) COMPULSORY COUNTERCLAIMS. A pleading shall state as a counterclaim any claim which at the time of serving the pleading the pleader has against any opposing party, if it arises out of the transaction or occurrence that is the subject matter of the opposing party's claim and does not require for its adjudication the presence of third parties of whom the court cannot acquire jurisdiction, except that such a claim need not be so stated if at the time the action was commenced the claim was the subject of another pending action.

Seagram's Predetermined Controls.

The import and importance of Seagram's predetermined controls involves consideration of the following:

(a) controls predetermined at the same value;

(b) controls predetermined at the same optimum range values; and

(c) controls predetermined at variable range values.

CONTROLS PREDETERMINED AT THE SAME VALUE.

In findings 11 and 16 (App. 14 and 15), the trial Judge found that it is important:

(a) to use samples of the same temperatures, the same amount and the same concentration for all observers, because even a small difference in temperature, amount or concentration between the samples submitted to any one observer or to different observers reduces the accuracy of the sensory response; and

(b) to limit judgment time to minimize observer's confusion, which increases progressively with an increase in the judgment time, as shown by plaintiff's Exhibit 4.

Also, it will hardly be disputed that the *time interval between samples must be predetermined* for the same reason as judgment time is predetermined, although no finding was made in this respect.

CONTROLS PREDETERMINED AT THE SAME OPTIMUM RANGE VALUE.

In findings 12-14, the trial Judge found that the values of temperature, amount and concentration employed should be predetermined to place them within their respective optimum ranges (App. 14-15). These findings point out: (**a**) *that using the same values of amount, temperature and concentration is not enough;* (**b**) *that such values could be too small to stimulate the sensory system, or so large as to act as a distracting factor or induce fatigue and adaptation; and* (**c**) *that between the high and low limits of each value there is an optimum range which produces maximum stimulation of the sensory system and thus promotes sensory response accuracy.*

In a paired-comparison test, all values of temperature, amount and concentration should be in their respective optimum ranges, but this is not true of a single sample test.

CONTROLS PREDETERMINED AT VARIABLE RANGE VALUES.

In a single sample test, concentration may be varied and, where it is, the values of temperatures and amount are predetermined to place them within their respective optimum ranges, *but the value of concentration is necessarily varied over the range being studied and this range may be below the optimum range, as it is in a threshold test,** *or above it.* Obviously the effect of a change in temperature, amount or time may be similarly studied. Thus judgment time was varied in the test producing plaintiff's Exhibit 4 (App. 40-41).

* * * * * * * *

The trial Judge found that Seagram's methods are sensitively accurate because they require the foregoing and other controls (F 8-9, App. 13-14) which promote sensory response accuracy (F 10-16, App. 14-15).

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*For example, the threshold of taste is the smallest concentration of a substance that an individual can detect (App. 167, col. 1).

Why The Controls Promote Sensory Response Accuracy.

The Seagram psychometric method makes use of the human sensory system as the only piece of equipment available for measuring qualitative properties such as flavor, odor, etc. This equipment is responsive to all kinds of stimuli. Seagram obtains sensitive and accurate results through proper controls. Possibly the easiest way of demonstrating how this is done is to show the analogy between the proper operation of a telephone line and the human sensory system.

TELEPHONE LINE OPERATION.

If we put into the telephone a voice which is too low or weak, the telephone may be so weakly stimulated that the voice reproduced at the receiving end is too soft or weak to be clearly audible. On the other hand, if we put into the telephone a voice which is too loud or strong, the telephone may be so strongly stimulated that the voice reproduced at the receiving end is greatly distorted. *However, if the voice input is well within these two limits, say within an optimum range, the telephone will be properly stimulated and the voice reproduced at the receiving end will be clearly and distinctly audible with little or no distortion.*

But even with perfect voice input from one particular source, the telephone line may nevertheless be stimulated by extraneous sounds or factors which distort the receiving end result. Thus the telephone line may be stimulated at the sending end by voices of other persons or sound vibrations from typewriters or other equipment. Lightning may strike the telephone line or voice currents from adjoining telephone lines may be induced therein, causing distorting cross-talk. *To maintain perfect operation of the telephone line, it is necessary to prevent it from being stimulated by these extraneous things.*

CORRESPONDING OPERATION OF HUMAN SENSORY SYSTEM.

The same thing is true of the human sensory system. Accordingly, we must: (a) control the incoming stimulus; (b) prevent the sensory system from being stimulated by extraneous stimuli; and (c) additionally minimize the possibility of observer-confusion in announcing or indicating the result. Thus in a *taste* test, we do the following:

1. provide a stimulus of predetermined value by having ing the observer swallow a sample of predetermined temperature, amount and concentration;
2. protect or shield the sensory system from extraneous stimuli by using blind test samples, submitting them under uniform illumination conditions and testing them for one qualitative property only;
3. minimize confusion of result by limiting the observers judgment time; and
4. precisely reproduce steps 1-3 for each additional observer in order to insure that the data secured from all observers will be on a comparative basis permitting sound mathematical treatment.

BRIEF FOR APPELLEE

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Appeal No. 10067

Joseph E. Seagram & Sons, Inc., A Corporation,
APPELLANT

v.

John A. Marzall
~~Lawrence C. Kingsland~~, Commissioner of Patents,
APPELLEE

APPEAL FROM THE JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

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United States Court of Appeals
for the District of Columbia
Circuit
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United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Appeal No. 10067

JOSEPH E. SEAGRAM & SONS, INC., A CORPORATION,
APPELLANT

v.

LAWRENCE C. KINGSLAND, COMMISSIONER OF PATENTS,
APPELLEE

APPEAL FROM THE JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

BRIEF FOR THE COMMISSIONER OF PATENTS

INTRODUCTION

This is an appeal from the judgment (App. 18) of the United States District Court for the District of Columbia, dated September 30, 1948, dismissing appellant's complaint (App. 2–5) against the Commissioner of Patents in an action under Section 4915 R. S. (35 U. S. C. 63), Civil Action No, 37662, in which appellant sought authorization from the District Court for the issuance of a patent containing certain claims (App. 6–9) for an alleged invention in a Method of Testing and Control.

APPELLANT'S APPLICATION

The specification of the application at bar (App. 71–88) describes the alleged invention as a method of testing, by human sensory reaction, samples of foods, beverages and like products intended for human consumption and having chemically-indefinable, sense perceptible qualitative properties such as bite, body, odor and taste. The description in the application is largely confined to the testing of distilled alcoholic beverages (Finding of Fact 4, App. 12).

The application discloses a single sample method for determining the lightness or heaviness of a given whiskey or like product (Finding of Fact 5, App. 12), and a paired comparison method for determining which of two whiskeys or like products is preferred, or which has the least bite, or which tastes better, or which has the better odor. (Finding of Fact 6, App. 13). The essential elements of each method consist in the preparation of test samples of predetermined temperature, amount and concentration, in submitting under uniform illuminating conditions at least one sample to each person in the group selected for the test, the group being large enough to reduce observation errors to allowable experimental limits, and then asking each person to subject the sample to the same sensory test, such as taste, and to indicate within a predetermined time interval his reaction to the property tested. (App. 75.) The responses obtained in either method are tabulated and correlated by well known statistical procedures to evaluate the particular property tested (Finding of Fact 7, App. 13).

THE CLAIMS

Claim 10 (App. 6, 7) covers both the single sample method and the paired comparison method, while claims 3–7 inclusive (App. 6) and 11–14 inclusive (App. 7–9) are limited to the paired comparison method (Finding of Fact 17, App. 15). All the claims contain limitations to four predetermined controls, namely, predetermined amount, temperature and concentration of sample, and a predetermined judgment time. Claims 3–7 inclusive and 11–14 inclusive include a fifth predetermined control, in that they call for the testing of a second or succeeding sample within a predetermined time following the testing of the first sample.

Claims 3–7 inclusive depend on claim 11 and, therefore, are more specific than that claim. Each of these claims is specific to one of the predetermined controls; thus, claim 3 specifies that the amount of each sample is approximately 4 *cc;* claim 4, that the judgment time is approximately 5–8 seconds; claim 5, that in the case of alcoholic beverages the alcohol concentration is approximately 40°; claim 6, that the temperature of the samples is maintained within substantially 0.2° C.; and claim 7, the specific order in which the samples are submitted.

Claim 12 is substantially the same as claim 11; claim 13 adds to claim 11 the step of correlating the indications obtained from the group in well known ways to evaluate the property tested; and claim 14 depends upon claim 13, and specifies that where color values of the samples differ, the added step of presenting such samples under conditions which make them appear substantially uniform in color.

All the appealed claims were found by the District Court to be unpatentable for the following reasons:

(1) The method defined in the claims at bar is not an art within the meaning of that term in sec. 4886 R. S. (35 U. S. C. 31) (Finding of Fact 28, App. 17);

(2) The method defined in the claims at bar is not inventively different from the prior art testing methods described in certain prior publications (Finding of Fact 30, App. 17); and

(3) The claims fail to meet the requirement of Sec. 4888 R. S. (35 U. S. C. 33), for definiteness (Finding of Fact 33, App. 17).

With respect to (2) and (3) above, appellant questions the propriety of these findings as to all claims except 10 on the procedural ground that there was no joinder of issue, even though defendant's answer (par. 14, App. 10) alleged nonpatentability for those reasons (Br. 7). However, the trial Court found that an issue was joined on these additional answer allegations. (Finding of Fact 3 (c), App. 12 and Conclusion of Law, App. 18.)

THE PRIOR ART

The publications relied upon as showing group testing of food products are the Food Industries Publication of March 1941 (App. 163–175) and Consumer Union Report of April 1941 (App. 177–179). This prior art shows it to be old to use group testing of foods and beverages to determine consumer preference, and to apply the results obtained to develop and improve the particular product. Some of these test methods made use of blind samples of predetermined concentration and of observer groups large enough to reduce observation errors to allowable experimental limits. Also, it was recognized that for stable results the size of the sample tested was important, and that spontaneous reactions of amateur observers reflected preferences more accurately. Some of the tests described were limited to one particular qualitative property, such as flavor, and consistent dependable results were obtained. (Findings of Fact 23, 24, App. 16, 17).

SUMMARY OF ARGUMENT

1. A proceeding under R. S. 4915 (35 U. S. C. 63) is a proceeding de novo, and is prepared and heard upon all competent evidence adduced and upon the whole merits. Since paragraph 14 (d) of the answer (App. 10) stated that plaintiff was not lawfully entitled to receive a patent containing any of the claims set forth in the complaint for the reason that said claims recite nothing amounting to an invention in view of certain specified publications, the patentablity of the claims over such prior publications was properly in issue before the trial court.

2. The method defined in the claims at bar is not inventively different from the testing methods described in the prior publications. The differences are noncritical; they are only those which common sense would dictate as necessary elements in any scientific approach to the problem. Consequently, the appealed claims are unpatentable over this prior art.

3. The method defined in the claims at bar is not subject matter falling within the classes of invention

specified in Sec. 4886 R. S. (35 U. S. C. 31) for which patents may be granted. The method claimed is not an art because

(a) it does not define a mode of treatment of material to transform and reduce it to a different state or thing, or to produce a physical result proceeding directly from the operation of the method itself; and

(b) it includes mental steps or operations. Consequently, the appealed claims are unpatentable.

4. The claims at bar do not meet the requirements of Sec. 4888 R. S. (35 U. S. C. 33) for particularity and distinctness. Defining the alleged critical *limitations,* limitations upon which novelty and patentability are predicated, as "predetermined" brings the claims within the field of prohibited indefiniteness.

ARGUMENT

1. Joindure of issue

Appellant urges that under the Rules of Civil Procedure it is necessary in order to set up an issue for the answer to deny the averments upon which the adverse party relies or to set forth an avoidance or affirmative defense (Br. 15). Appellee submits that the answer did set up (par. 14, App. 10) as an affirmative defense the unpatentability of the claims over certain prior publications, and therefore, that that issue was properly joined; and further, that the evidence on this issue was properly received and considered.

Appellant filed this suit under the provisions of Sec. 4915 R. S. (35 U. S. C. 63) praying for an adjudication that it is entitled, according to law, to receive a patent, and asking the court to authorize the Commissioner of Patents to issue said patent. In such suits the general rule is that no adjudication can be made in favor of the complaining party unless the alleged invention for which a patent is sought is a patentable invention. *Hill et al* v. *Wooster,* 132 U. S. 693. Under that rule this Court has held that patentability is a proper issue in a proceeding under Section 4915 R. S. and if raised in the District Court it must be decided. *Radtke Patents Corp.* v. *Coe,* 74 App. D. C. 251, 122 F. (2d) 937, certiorari denied 314 U. S 695; *Knutson* v. *Gallsworthy,* 82 U. S. App. D. C. 304, 164 F. (2d) 497. And even where the answer fails to include a pertinent reference this Court held that it is proper to receive it in evidence upon the issue of patentability. *American Steel & Wire* v. *Coe,* 70 App. D. C. 138, 105 F. (2d) 17. As pointed out in the *Knutson* case, this requirement that the court in an action under R. S. 4915 must determine patentability "rests not only upon the authorities above mentioned, but also upon reason," for "to hold otherwise would be to hold that the court should decide one issue presented to it but close its eyes to others equally determinative of the ultimate adjudication."

Moreover, insofar as appellant relies upon the Federal Rules and the setting up of issues thereunder, it should be noted that it has been held that "the purpose of a pleading is to give the opposite party notice of what the party may expect to meet, rather than frame issues"; (*Bottin Amusement Co.* v. *Cocalis* *et al.*, 1 F. R. D. 769) and also that the "Rules were designed to simplify judicial procedure and to adjudicate all phases of litgation involving the same parties, and to avoid multiplicity of suits; they should be liberally construed to give effect to the objectives which prompted their promulgation." (*H. F. G. Co.* v. *Pioneer Pub. Co. et al.*, 7 F. R. D. 654). The procedure suggested in appellant's brief (Br. 16) would run counter to these maxims.

2. Nonpatentability over the prior art

Since appellant concedes that the prior publications employ some of the predetermined controls set forth in the appealed claims (Br. 9) it should suffice to confine the discussion to those features which it is contended are not disclosed in the prior art.

The first control alleged to be lacking in the prior art is that of using samples of predetermined temperature. (Br. 19, 20.) In connection with this limitation, it is believed to be self evident that in the testing of food products for taste, as described in the Food Industries publication (App. 166–168), and in the testing of clam chowder and mushroom soup for flavor in Consumers Union Reports (App. 179), the samples submitted to the groups of testers were at some temperature. Even if served at room temperature, that temperature is a predetermined temperature. According to the dictionary, predetermined means only "to determine beforehand," and even though appellant's expert did not clearly state what he understood by the term predetermined (App. 53. 54), it is submitted that the dictionary definition should be controlling on this point. Further, it is believed to be a matter of common knowledge, which this Court may judicially notice, that soups are served hot, and because of that fact the temperature is predetermined. No fixed or definite temperature can be inferred by the expression predetermined temperature.

The second control alleged to be undisclosed in the prior art is that of using samples of predetermined amount (Br. 20, 21). It is submitted that recognition of the importance of the amount is contained in the statement in the prior publication that "the size of the sample necessary for stable results depends on the contrasts in the products' characteristics and on the number of testers" (App. 168, col. 2). Appellant's sole comment as regards this statement is that the phrase "size of sample" mentioned refers to the size of the group conducting the test (Br. 21). However, reference to a preceding paragraph of the same article (App. 168, col. 1) will show clearly that the term "sample" was used to refer to the product being tested. Under these circumstances, the prior art fairly meets this limitation.

The third control relied upon to patentably distinguish over the prior art relates to the predetermined judgment time (Br. 21–23). Appellant stresses the importance of limiting the judgment time to no more than 5 seconds, and contends that there is no evidence indicating that the prior art had any appreciation of this factor (Br. 22). Apart from the fact that the limitation to a predetermined judgment time does not exclude long periods of time, which might be said to be inoperative for appellant's purpose, it is submitted that such limitation is substantially met by the disclosure in the prior art that "spontaneous reactions of amateurs reflect market preferences more accurately" (App. 168, col. 1). It is believed to be obvious that the time interval to be called spontaneous must of necessity be a short one, and even though it might be said that spontaneity is not predetermined in one sense of the word, it is predetermined in the sense that the party giving the test has asked for such a response. In any event, whether it is or is not a predetermined judgment time, the difference is not a patentable one.

The fourth control relied upon for patentability is the use of a predetermined time interval between samples (Br. 23). As previously pointed out, this limitation applies only to the paired-comparison method and does not appear in appealed claim 10. Appellant asserts that there is no evidence indicating that the prior art employed a predetermined time interval of this character. (Br. 23). However, the prior art is believed to have hinted at such a factor where in speaking of paired comparison testing it is said that the instructions to the testers called "for alternate use with a normal time interval between the use of each, the alternate use being repeated as often as desirable" (App. 172, col. 3). Moreover, it is submitted that a common sense approach to the problem would require a limitation of this sort, since it is common knowledge that some time elapses before a taste reaction is dissipated, and the taste of a second sample would be affected unless this time element were present. Also, the statement in col. 3 of App. 174 would appear to show a recognition of the importance of this factor for proper test procedure. No patentable merit exists in this limitation.

With respect to the additional limitations of claims 3–6 inclusive, which depend from claim 11, it suffices to say that each of these claims is specific to one of the aforementioned controls, but, since no contention is made that the specific figures set forth are critical, it cannot be seen that these limitations impart patentability to the claims. While it is true that there is no evidence of their use in the prior art as appellant contends (Br. 24), it should be noted that the specific values assigned for each control were disclosed as merely exemplary. (App. 75.) The sole criterion is that the same val~~v~~ue be used for each sample given to each observer, but it is submitted that limitation is only the application of common sense to the problem at hand. For it is generally recognized that in any scientific study involving two or more variables, the effect of any one variable can be determined only in experiments in which the other variables are held constant. Accordingly these additional limitations are immaterial and of no patentable significance. The findings of the District Court (Findings of Fact 30, 31, App. 17) that the appealed claims are not inventively different from and therefore unpatentable over the prior art is believed to be amply supported by and to have a rational basis in the record (*Abbott* v. *Coe,* 71 App. D. C. 195, 109 F. (2d) 449).

3. Non-patentable subject matter

The examiner and the Board of Appeals in the Patent Office held that the method defined in the appealed claims does not constitute patentable subject matter under Sec. 4886 R. S. (35 U. S. C. 31). The District Court agreed with the decision of the Board of Appeals, holding that the method is not an art within the meaning of that term in the Patent Statute (Finding of Fact 28, App. 17).

In interpreting the expression "useful art" in Sec. 4886 R. S. the Supreme Court of the United States in *Cochrane* v. *Deener,* 94 U. S. 787 defined a patentable process as follows:

> A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing.

This Court in *In re Weston,* 17 App. D. C. 431 after considering and discussing all the prior Supreme Court decisions stated:

> It seems to us from all these authorities the deductions to be drawn are these: First, that processes involving a chemical or other elemental action, if new and useful, are patentable; second, that a process which amounts to no more than the mere function of a machine, is not patentable; third, that a process or method of a mechanical nature, not absolutely dependent upon a machine, although perhaps best illustrated by mechanism, may, if new and useful, be the proper subject of a patent, even though, it involves no chemical or other elemental action.

Again in *Holland Furniture Co.* v. *Perkins Glue Co.,* 277 U. S. 245, the Supreme Court said:

> A patentable process is a method of treatment of certain materials to produce a particular result or product. *Cochrane* v. *Deener,* 94 U. S. 780.

and this Court in *Myers* v. *Coe,* 65 App. D. C. 362, 83 F. (2d) 708 agreed with the Patent Office that the method claims there under consideration did not define patentable subject matter because

> They do not define a "mode of treatment of certain materials to produce a given result," nor do they define "an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing." *Cochrane* v. *Deener,* 94 U. S. 780.

In connection with the definitions of what constitutes a patentable process, it is desired to complete the list by reference to those appearing in Robinson on Patents, and in Walker's Treatise on the Law of Patents for Inventions (6th Ed.). The former states that:

> A plan or theory of action, which, if carried into practice, could produce no physical result proceeding directly from the operation of the theory or plan itself, is not an art within the meaning of the Patent Law.

The latter on page 25 sets forth the same classes of processes as that outlined in *In Re Weston, supra,* but in defining the first class states that they are:

> * * * operations, which consist partly or wholly in the employment of heat, light, elec-

> tricity, magnetism, chemical action, pneumatic hydraulic or some other force producing physical change * * *."

Now, if appellant's claims here in controversy are patentable, they must fall within the first class set forth in *In Re Weston, supra,* because the method defined therein is not one of mechanical nature, and therefore cannot fall into the second or third class. Moreover, since it is believed to be obvious that appellant's method does not involve chemical action, it can fall within class one only on the theory that it involves the use of "elemental action" to produce a desired result.

What then is appellant's method and wherein does it utilize elemental action (*In Re Weston*) or one of the agencies of nature for a practical purpose? Considering claim 10 (App. 6) it is seen that the method consists in (1) preparing blind test samples, (2) submitting such samples to each observer of a large group, and (3) causing each observer to subject the sample to the same sensory test, and to indicate his sensory reaction. Appellant contends that the claimed method makes use of the human sensory system as the available equipment for measuring qualitative properties such as flavor, odor, and that in the use of that system certain forces of nature are involved, and these forces are so controlled as to make them accomplish a practical purpose (Br. 28, 43). And in contending that agencies of nature are involved in the process appellant draws on analogy between the proper operation of a telephone line and the human sensory system (Br. 43).

Nowhere in appellant's brief can there be found any positive statement as to what force of nature is utilized in carrying out the claimed method, although, there is an intimation or suggestion that an electrical of electro-chemical effect is involved because of the use of the human sensory system (Br. 32), and that these forces are controlled to make them accomplish a sensitively accurate measurement of a specific qualitative property (Br. 28). Further, appellant asserts that from a physical effect standpoint there is absolutely no difference between the flow of an electrical current over a wire and the flow of an electrical or electro-chemical current over a person's nerves. (Br. 32.)

It is believed to be self-evident that the action of the nerves in the observer's body in receiving the sensory effect and the subsequent action of his vocal cords in announcing what his reaction is are not the elemental action or use of an agency of nature such as is contemplated by the authorities cited. It would appear too clear to need any further discussion that these mental impressions and reactions are not proper statutory subject matter. The method operates wholly through the intelligence of the observer, and utilizes no force of nature in the acceptable meaning of that expression. To that effect is *Greenewalt* v. *Stanley Co.,* 54 F. (2d) 195.

Moreover, it should be noted that appellant's method exercises no control over the observer's nervous system and that the suggested analogy is illusory. The observer's response or indication of his sensory reaction is wholly within his own control. There is complete freedom of action as to whether there is any response at all and what that response may be. There is neither control over the sensory effect nor control over the response or indication of the effect.

Furthermore, in contending that, on the basis of the *Telephone* Cases, 126 U. S. 1, there is no physical effect rule, appellant conveys the impression that the holdings below were to the effect that the rule required a permanent change in the material being treated. (Br. 31.) However, as appears from the record, it was the opinion of the tribunals below that in those cases the requirement of physical change was satisfied by the vibration of the diaphragm used at the transmitting and receiving ends of the apparatus (App. 152). Since the result of appellant's method is only the psychological, sensory effect on the observer, it is submitted that they cannot be compared as physical effects, in a patentable sense, to the effects produced by the flow of current over a wire.

In addition, the District Court held that the claimed method defined nonpatentable subject matter because of the inclusion of mental steps or operations (Finding of Fact 28 (b), App. 17). The Board of Appeals in the Patent Office relied upon *Greenewalt* v. *Stanley Co.,* 54 F. (2d) 195 in making this rejection (App. 151).

Appellant urges that a claim which involves a mental step or operation is not unpatentable per se (Br. 34), and that when mental steps are combined with novel physical steps, the claims are patentable (Br.

36). It is contended that the instant claims fall within the latter category because of the alleged novel physical steps involved in the preparation of the samples of predetermined size amount and concentration (Br. 36).

That the claims at bar contain mental steps is not in dispute; but that the claims contain novel physical steps is an issue. It is submitted that the actual physical steps set forth in the claims—namely, preparing the test samples, and submitting them to the observers—are only those customarily used in the prior art. Whether the sample be of predetermined concentration, size and temperature has nothing to do with the physical steps or operations defined in the process. And insofar as the step of causing the observer to test the sample is concerned it is difficult to see how any physical operation or step is involved. The observer of his own volition tastes the sample and indicates his reaction thereto. While the act of tasting may be a physical step, the act of causing the observer to taste is not, since there is no control exercised over the observer at this point in the method.

The patentability of method claims involving or including mental operations was considered by the Court of Appeals for the Ninth Circuit in *Halliburton Oil Well Cementing Co.* v. *Walker,* 146 F. (2d) 817 and it was held that such claims were not patentable even if the mental steps are novel. Although appellant states that the claims considered involved mental steps only (Br. 35), an inspection of the claims of the patents involved will show that the methods included physical steps with mental steps. Also in *In Re Heritage,* 32 C. C. P. A. 1170, 150 F (2d) 554, the Court of Customs and Patent Appeals held that patentability cannot be predicated upon a mental step or operation. Apparently as to this cited case appellant concedes that physical steps were involved in the claims before the court. (Br. 35). Under the authorities, it is submitted that the appealed claims, which admittedly contain mental steps, are unpatentable under Sec. 4886 R. S.

Attention is invited also to the statements (App. 69, 70) of the witness, Dr. Scofield, who is one of the joint applicants of the application involved in the proceeding, that by the use of the stated predetermined controls he discovered a hitherto unknown law of a fundamental property of the human race. In essence, it would appear that the witness contended that his method made possible the discovery of a law of nature.

Discovery of a so-called law of nature cannot form the basis of a patent. *Morton* v. *N. Y. Eye Infirmary,* 5 Blatchf 116, 17 Fed. Cases 9865, *Le Roy* v. *Tathane,* 14 Howard 156, 175, *Funk Bros. Seed Co.* v. *Kalo Inoculant Co.,* 76 U. S. P. Q. 280. Considering appellant's process in this light, it is submitted that the holding of the District Court was proper.

4. Indefiniteness

Findings of Fact Nos. 32, 33 (App. 17) were to the effect that all the claims were unpatentable as failing to meet the requirements of Sec. 4888 R. S. (35 U. S. C. 31) for definiteness because of the use of the term predetermined in connection with the alleged critical factors of temperature, time, concentration and amount.

Appellant contends that the term "predetermined" is used in the claims in the ordinary dictionary sense of "to determine beforehand." In that meaning of the term it signifies only that the temperature, for example, is determined in advance of the performance of the methods defined by the claims (Br. 17). That being true it is obvious then that the term defines no particular or specific values. It connotes only that some value is selected at some time prior to the testing procedure. In this broad sense of the term the only requirement is that some temperature, some amount, and some concentration be utilized. Since the term is not a designation of any specific value or figure, it would include the temperature, time, size and concentration of foods and beverages usually used in group tests, whatever they may be; and since these elements are the essence or critical factors of appellant's alleged inventive method, they are not recited with sufficient particularity to meet the statutory requirement. Claims which use indefinite language at the exact point of alleged novelty fail to comply with Sec. 4888 R. S. *General Electric Co.* v. *Wabash Appliance Corp et al.,* 304 U. S. 364; *Kobel et al.* v. *Coe,* 70 App. D. C. 261, 105 F. (2d) 784; *Standard Brands Inc.* v. *National Grain,* 308 U. S. 34.

Evidence of commercial success and the adoption of appellant's method by others is of record (App. 114–124). Commercial success, however, cannot take the place of invention, and cannnot impart patentability where none exists. *Tropic Aire* v. *Sears Roebuck & Co.,* 44 F. (2d) 580, cert. denied 282 U. S. 904. Only when the question of invention or patentability is in doubt have the courts permitted the question of commercial success to be a factor. Then, and only then, can such success be said to be indicative of invention. *Paramount Public Corp.* v. *American Tri-Ergon Corp.,* 294 U. S. 464, *Conover* v. *Coe,* 69 App. D. C. 144, 99 F. (2d) 377. Even though utility and commercial success be conceded, nevertheless they are not sufficient in themselves to justify the issuance of a patent. *Morrison* v. *Coe,* 74 App. D. C. 335; *Rembert* v. *Coe,* 78 U. S. App. D. C. 50.

CONCLUSION

It is respectfully submitted that the District Court properly held all the claims here involved unpatentable and that its judgment should be affirmed.

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March 1949.

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REPLY BRIEF FOR SEAGRAM, APPELLANT

IN THE

UNITED STATES COURT OF APPEALS

FOR THE DISTRICT OF COLUMBIA CIRCUIT.

No. 10067

JOSEPH E. SEAGRAM & SONS, INC., a corporation,
Appellant,

v.

John A. Marzall
~~LAWRENCE C. KINGSLAND~~, Commissioner of Patents,
Appellee.

Appeal from the United States District Court for the District of Columbia.

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LAWRENCE C. KINGSLAND, Commissioner of Patents,
Appellee.

Appeal from the United States District Court for the District of Columbia.

REPLY BRIEF FOR SEAGRAM, APPELLANT.

In making its reply to the argument contained in the Brief for the Commissioner of Patents, Seagram will adopt the main headings employed in the Commissioner's Brief.

JOINDER OF ISSUE.

The Commissioner asserts:

1. That an issue was properly joined, because the answer set up, as an affirmative defense, the unpatentability over newly cited prior art of Claims 3-7 and 11-14, which were allowed by the Board of Appeals over other prior art; and
2. That the evidence on this issue was properly received and considered.

Prior Art Issue.

The Commissioner cites the interference case of Hill, *et al.* v. Wooster, 132 U. S. 693, 33 LE 502, 10 S. Ct. 228, as establishing a rule, the Commissioner's version of which, as we understand it, may be stated as follows:

> "In *any* 4915 action, the defendant may raise the prior art issue as an affirmative defense regardless of the issues established by complaint and answer."

If this be the inflexible rule, then Seagram concedes there may be no merit to the first point argued in Seagram's Brief at pages 15-17.

This may well be the rule in interference cases, under RS-4915, or in any 4915 action where a favorable decision would *require* the Commissioner to issue a patent. But not all 4915 actions have that effect. In Hoover v. Coe, 325 U. S. 79, 65 S. Ct. 995, 89 LE 1418, 65 PQ 180, the Supreme Court held that RS 4915 confers jurisdiction on the District Court to enter a decree which does not determine the right of the applicant to receive a patent but which instead directs the Examiner to allow claims for the purpose of provoking a subsequent interference proceeding.

In the present case, a decision favorable to Seagram on the established issues does not mean that the Commissioner is required to issue a patent to Seagram. The complaint in this case prays for just relief, and under that prayer it is possible and proper for this court to find in favor of Seagram and then to authorize the Commissioner either to issue a patent or to reopen the prosecution and give Seagram an opportunity of avoiding, by amendment or otherwise, any objections the Commissioner may have against the claims. *The United States Supreme Court, in Hoover* v. *Coe, supra, cites a number of cases to demonstrate that the courts have not questioned the power of the Patent Office, after an adverse decision under RS 4915, to disallow the claims involved for want of invention over a newly discovered reference in the prior art.* To follow any other procedure in this case is **unfair** to Seagram because:

(1) it denies Seagram the examination to which it is entitled in the Examining Division of the Patent Office and for which it paid the statutory fee; and

(2) permits the Commissioner

  (a) to avoid his duty of searching the records and citing the best prior art while the application is in the Examining Division, and

  (b) to play the "hidden ball trick" by waiting until Seagram brings this action before citing the **only** prior art upon which it relies.

Evidence On Prior Art Issue.

The Commissioner asserts that the evidence on the prior art issue concerning Claims 3-7 and 11-14 was properly received. **This statement is incorrect.** Seagram objected to the introduction of evidence on these claims (App. 62) and that objection was sustained (App. 63), whereupon, with respect to the prior art issue, the following statements occur:

> "Mr. Schimmel: May I infer from that, the only claim before the Court is Claim 10?
>
> The Court: You are correct.
>
> Mr. Schimmel: Well, I shall cease my cross-examination.
>
> The Court: Yes" (App. 64).

The question was again taken up (App. 65-66) and concluded with the Court statement that he would let the ruling stand. The prior art references relied upon by the Patent Office were admitted in evidence only on the prior art issue concerning Claim 10.

NONPATENTABILITY OVER THE PRIOR ART.

At the outset we note that the Commissioner's Brief does not dispute Seagram's argument concerning Points 4 and 5 (Seagram Br. 24-26) and showing that Findings of Fact Nos. 26 and 27 are wholly unsupported by the evidence which directly establishes the contrary. Seagram's sensitive and accurate method cannot be anticipated by prior art methods which are so insensitive and inaccurate that they cannot be substituted therefor.

Predetermined Temperature.

The Commissioner does not deny that the prior art:

(a) Failed to appreciate the fact that temperature is an important factor; and

(b) Failed to state the temperature at which any one sample was consumed by any one participant, or that all participants consumed all samples at the same temperature, or that the specific temperature of the samples at the time of consumption was in any way predetermined at some specific value.

The Commissioner's position is that a housewife knows in advance that she is going to serve hot soup, therefore the temperature is predetermined. We think it obvious that a predetermined temperature means some specific value of temperature determined in advance, and that hot soup is not a soup of a predetermined temperature.

Predetermined Amount.

The Commissioner asserts that the prior art expression, "size of sample," refers to the amount of a given food product being sampled. There are two things in the prior art that demonstrate the **Commissioner's error** and emphasize the accuracy of the statement in Seagram's brief (page 21) that "size of sample" refers to the size of the group conducting the test.

Cowan uses the phrase "size of sample" (App. 168, Cols. 2, 3) in discussing the securement of stable test results. If the contrast between two products is pronounced, few testers are required and obviously few are required to determine the difference between sugar and vinegar. But where the contrast is subtle, "results should be based on a larger number of people" and this number depends on the error the manufacturer is willing to risk.

Bogert refers to guesses by those participating in the test and notes that if all members of the jury vote by guess, on the basis of pure chance, the votes for the two products would be equal *within the limits of the probable error due to the size of the sample* (App. 174, col. 2). Obviously the probable error depends on the number of voters or the number of persons participating in the test, **and such number constitutes the size of the sample.** As is well-known, the Gallup, Roper and like polls refer to "sampling the public" and the error of such polls are commonly attributed, in part, to the size of the sample.

Predetermined Judgment Time.

The Commissioner asserts that Seagram's predetermined judgment time limitation in all of its claims is substantially met by the prior art reference to "spontaneous reactions of amateurs." The Commissioner goes on to say that spontaneity "is predetermined in the sense that the party giving the test *has asked for such a response.*" A spontaneous response is an unprompted response. **How can a person, giving the test, prompt an unprompted response?**

Predetermined Time Interval Between Samples.

The Commissioner admits the failure of the prior art to disclose the importance of this feature but says that the prior art hints at it because Bogert calls for the alternate use of samples with a normal time interval of one, two or several days between each use (App. 172, col. 3). This requirement of the prior art group tests is satisfied when one tester uses a one-day interval, another two days and others several days, whereas, in Seagram's method, the same interval is predetermined and used for all observers. *If the varying time interval of prior art group tests is a predetermined time interval between samples, then the word "predetermined" must have lost all of its meaning.*

Additional Limitations of Dependent Claims.

The Commissioner admits that there is **no evidence** in the prior art of the use of the various limitations specified in the dependent claims (Com. Br. 11) but asserts that the specific value assigned for each control is merely exemplary. Our answer to this is that Claim 6, for example, requires the predetermined temperature of all samples to be maintained within a range of .2°C. or .36°F., *while Finding of Fact No. 11 (App. 14) notes that it is important to use samples of the same temperature because a small difference in temperature between the samples submitted to any one observer, or to different observers, reduces the accuracy of the sensory response.* The specific values specified in all of the dependent claims are important because they promote sensory response accuracy (F. 11-16, App. 14-15).

NONPATENTABLE SUBJECT MATTER.

Seagram's Method Uses Agency of Nature

(Com. Br. 14-15).

The Commissioner **queries** wherein does Seagram's method utilize one of the agencies or forces of nature for a practical purpose (Com. Br. 14), **and states** that the action of the nerves in the observer's body in receiving the sensory effect, and the subsequent action of his vocal chords in announcing what his reaction is, are not the elemental action or use of an agency of nature such as is contemplated by the authorities cited (Com. Br. 15).

At the outset it should be thoroughly appreciated that Seagram is not trying to patent the action of the human nerves or of the vocal chords. *It is trying to patent a three-step method,* **in the first step of which** *samples of predetermined characteristics are prepared,* **and in the third step of which** *use is made of those samples and of the human sensory system as the only equipment capable of measuring the qualitative properties of the sample.*

In the first step, Seagrams utilizes an agency or force of nature. Webster's New International Dictionary, 1929 Ed., discloses that "agency" denotes an instrumentality for exerting power (page 42), "force" denotes strength, power or energy (page 842) and "nature" denotes the world of matter, or of matter and mind (page 1440). Seagram's first step includes the physical step of preparing certain samples which are composed of matter. *These samples are agencies or instrumentalities for stimulating the human sensory system with a predetermined force.* Obviously therefore, Seagram's first step utilizes an agency or force of nature, while Seagram's method itself is used for a practical purpose (F. 18-19, App. 15-16).

In the third step, Seagram's use of the human sensory system constitutes the use of an agency of nature. We see no difference, in principle, between Seagram's use of that agency of nature and the patentable use Ellis makes of it, as reported in the animal tissue case of Ellis v. Coe (1941), DC DC 49 PQ 232, which is considered in Seagram's brief at page 29. The Greenewalt v. Stanley case, 54 Fed. 2d 195, does not support the Commissioner's position as we will later show in this brief.

Seagram's Method Exercises Control Over the Sensory System (Com. Br. 15-16).

The Commissioner asserts that Seagram's method exercises no control over (a) the human sensory system, (b) the sensory effect or sensory response and (c) the observer.

We might say that Seagram's method does not control any of the following:

1. The sensory reaction in the sense of producing a new type of reaction which is different in action or nature from that otherwise produced; or
2. The sensory system in the sense of making it work in a different way or on a different principle, or
3. The human being possessing that system in the sense of making him change his will.

The lower court found that Seagram's method is sensitively accurate because, among other things, it *controls* the temperature of each sample, the amount of each sample, and one or more time intervals (F. 816, App. 13-15). Because of these controls we think it accurate to say that **Seagram's method controls what may be termed the working and environmental conditions under which the human sensory system operates in measuring qualitative properties.** *Seagram has a three-step method in which these conditions are controlled for the purpose of stimulating the sensory system to a predetermined level or degree where its ability to make the appropriate sensory response or discrimination, both accurately and sensitively, is promoted or maximized, and permitting it, when so stimulated, to discriminate in its normal and natural way without other distracting stimuli.*

Seagram's Method Has a Physical Effect (Com. Br. 16).

The Commissioner asserts that a lower Tribunal (the Board of Appeals) **found** no physical effect in Seagram's method **and distinguished** the Telephone case therefrom by regarding the vibrations of the diaphragm used at the transmitting and receiving ends of the Telephone as physical effects (App. 152). However, after Seagram pointed out that the vibration of a diaphragm was not involved in the telephone claims under consideration and therefore should not be read into the Telephone claims unless the vibrating vocal chords of Seagram's observers were read into Seagram's claims (App. 154-155), the lower Tribunal changed its position to the following (App. 156-157):

> (a) The signal current and sound vibrations also may be regarded as physical effects, if desired, within **meaning of our decision.**

(b) The action of a person's nerves and vocal chords are not physical effects.

If there be any difference, from a physical effect standpoint, between a voice current and a nerve current, we are unable to see it, and the Commissioner makes no attempt whatsoever to explain what that difference may be or its importance in a patent case.

Seagram's Method Employs Novel Physical Steps
(Com. Br. 16-17).

The Commissioner states that the physical steps set forth in Seagram's claims comprise only preparing the test samples and submitting them to observers, and therefore such steps are not novel physical steps. It is of course obvious that the Commissioner is committing unwarranted mayhem on each step of the claim. *As a matter of fact, preparing test samples, submitting them to observers, and causing observers to test them are all old steps.* **But they are not the steps claimed.** As noted on page 36 of Seagram's brief, the first step is a novel physical step because it involves samples of novel characteristics, and the third step is a novel physical and mental step because it involves novel time limitations which are of a physical nature rather than mental nature.

Halliburton v. Walker—A Mental Case Only
(Com. Br. 17).

The Commissioner cites the Halliburton v. Walker case, 146 Fed. 2d 817, saying that an inspection of the claims there involved will show that the methods claimed included physical steps with mental steps. **The 9th Circuit Court of Appeals, which rendered the decision, disagrees with the Commissioner.** Its decision, with respect to patent No.

2,209,944 in suit, notes: **first,** that the lower court held this patent invalid for want of invention, finding that its novelty lay only in the performance of certain mental steps; **second,** that the method involves the steps of setting down three knowns in a simple equation and computing an unknown; and **third,** that "We think these mental steps, even if novel, are not patentable" (146 Fed. 2d 821).

The same court, with respect to reissue No. 21,283 in suit, says at page 823, "What we have said about the mental steps detailed in No. 2,209,944 applies with equal force to the steps we have described here. While their compilation may have elements of novelty, we do not think it involves patentable invention."

The Commissioner cites no authority showing that a claim, which involves mental steps **combined with novel physical steps,** is unpatentable because it includes mental steps.

GREENEWALT v. STANLEY, 3d CCA 54 FED. 2d 195, 1930 CD 535, 12 PQ 122.

The Commissioner cites the Greenewalt case as authority for holding that Seagram's claims define non-statutory subject matter. We respectfully ask this Court to give very careful attention to our discussion of the Greenewalt case under these headings:

Greenewalt's Subject Matter.
Greenewalt's Claims.
Greenewalt's Decision.
The Commissioner's Position.
Seagram's Positions.

Greenewalt's Subject Matter.

In the Greenewalt case, one practice of the invention required an orchestra conductor: (a) to direct an orchestra; (b) to flood the audible area with light; and (c) to interpret the music by simultaneously and gradually varying the light and color intensity in timed relationship with the emotional or aesthetic content of the music.

Greenewalt's Claims.

Greenewalt's Claim 10 is representative, covering:

1. Producing rhythmic sounds;
2. Flooding the audible area with light; and
3. Simultaneously and gradually varying the light and color intensity in timed relationship with emotional or aesthetic content of a succession of such sounds.

Greenewalt Decision.

The lower court invalidated Greenewalt's claims because of a prior use. The 3d CCA affirmed the lower court and additionally rejected the claims because they lacked statutory subject matter, saying:

A.

> "From the appellant's testimony, and from a study of the method claims and the specifications, it appears that it is immaterial at what point or points in the musical composition the change in the intensity or color of light takes place or in what degree it occurs or what colors are used. What is done in carrying the method into effect, and how it is done, is to be determined by the aesthetic and emotional reaction of the individual, and such reactions may differ with different individuals."

B.

"It is apparent from the specifications and claims, and the appellant's detailed elucidation of what is meant thereby, that the invention *depends upon the artistry, caprice or peculiarities of the performer* and the susceptibility of the auditor-spectator. We do not find authority in the law for the issuance of a patent for results dependent upon such intangible, illusory and non-material things as emotional or aesthetic reactions. An emotional or aesthetic timed relationship between music and light, thus dependent, is not a statutory 'art, machine, manufacture, or composition of matter' susceptible of protection under the patent laws. R. S. 4886 (35 USCA 31)."

Commissioner's Position.

We assume that the Commissioner's position is the same as the position of the Board of Appeals, which *recognized that claims 3-7 and 11-14 were allowable over the prior art because they included a novel physical limitation* **but held such claims to lack statutory subject matter simply because they involved a sensory effect.**

We believe this is the **first decision** to hold that claims, which are "physically" novel over the prior art, nevertheless lack statutory subject matter when they involve a **sensory effect.**

Seagram's Positions.

Seagram's positions are:

1. Greenewalt's claim was properly rejected on **non-sensory grounds** because:
    (a) it was so broad that it covered a mere **idea or abstraction** which brings it outside the scope of Section 4886 R.S. and violates Section 4888 R.S.;

- (b) it depends upon **caprice**; and
- (c) it covered useful and **non-useful** results.

2. There are important **sensory differences** between Greenewalt's method and Seagram's method, and these differences are responsible for Greenewalt's method being unpatentably indefinite and Seagram's method patentably definite.
3. The Board's holding that Seagram's claims lack statutory subject matter simply because they involve a sensory effect **is arbitrary and unsound.**

GREENEWALT'S THREE NON-SENSORY GROUNDS OF REJECTION.

GREENEWALT'S CLAIMS COVER MERE IDEA OR ABSTRACTION.

The indefinite breadth of Greenewalt's claim is indicated in the Greenewalt decision by the matter quoted in this brief under A, which points out that the following factors were immaterial:

1. At what point or points in the musical composition the change in the intensity or color takes place.
2. In what degree such change occurs.
3. In what order the changes occur.
4. What colors are used.

Since all of these factors are entirely immaterial, so far as the claim is concerned, it will be seen that *whatever is done in practicing the method, and however it might be done, is not taught by the patent or otherwise predetermined. It must be determined solely by the individual reaction of each individual performer. There is no definite way of practicing the invention.* Accordingly, all things considered, that claim simply covered an abstract idea. Obviously this not only takes it out of the scope of Section 4886 R.S. but causes it to violate the distinct claim requirement of Section 4888 R.S.

The fact that Greenewalt's claim is a mere abstraction is clear from the striking parallel between it and the "non-sensory" method claim involved in the *arc lamp case* of Manhattan General Construction Co. v. Helios-Upton Co. (1905), CC ED Pa. 135 F. 785, 788. To demonstrate this parallel we quote a pertinent portion of the arc lamp decision and place it in side by side relationship with a paragraph applying to Greenewalt's claim as follows:

Arc Lamp Case.	**Greenewalt Case.**
"It is not limited to any particular *mechanical construction* because it monopolizes every form of *regulation* of the character specified, in which there is a correlation between the *magnetic and mechanical* forces employed, and that, too, without indicating, except by the broadest generalities, upon what basis that correlation is to proceed. We have practically nothing more than the forces made use of and the fact that they are to be correlated and the result to be produced. This carries it beyond anything which it was the design of the patent law to secure and protect."	"It is not limited to any particular *series of acts* because it monopolizes every form of *operation* of the character specified in which there is a correlation between the *light and color and music* forces employed, and that, too, without indicating, except by the broadest generalities, upon what basis that correlation is to proceed. We have practically nothing more than the forces made use of and the fact that they are to be correlated. The claim does not specify the result to be produced."

GREENEWALT'S METHOD DEPENDS ON CAPRICE.

The matter quoted from the Greenewalt decision under B, herein, indicates that Greenewalt's invention lacked statutory subject matter because it *depends upon* the artistry, *caprice* of peculiarities of the performer. In the last sentence, the Court says a relationship "thus dependent" is not statutory subject matter. Read in this light, it becomes evident that the claim lacked statutory subject matter because the relationship, between music and both light color and intensity was dependent upon the caprice of the performer.

A method claim obviously is intangible and indefinite when the results obtained during the practice of the method depend upon caprice. Seagram's method is not subject to this criticism. It eliminates caprice and is definite and tangible.

GREENEWALT'S CLAIMS COVER USEFUL AND NON-USEFUL RESULTS.

Greenewalt's method, as claimed, was so broad that it could be practiced by both:

(a) skilled conductors capable of producing accordant and useful results; and

(b) unskilled persons capable only of producing discordant and utterly non-useful results.

The production of useful results from Greenewalt's method requires skilled conductors, but the claim itself covered the technique regardless of the skill or lack of skill of the conductor.

A claim which covers useful and non-useful results is not patentable. In the *arc welding case* of Johnson v. DuQuesne Light Co. (1928) DC WD Pa., 29 Fed. 2d 784, the claims related to a method for ascertaining a defective electrical insulator, and involved striking an electric arc upon or adjacent to the insulator. This arc must be appraised by the operator. **If the operator is inexperienced, useful data is not produced.** If the operator is experienced, then he can make correct comparisons and deductions from the sound and length of the arc. The Court here invalidated the claim because if you follow the steps of a method claimed you do not necessarily produce a useful result or the desired result. **This non-sensory method and the Greenewalt sensory method both depend, for good and useful results, upon the skill or artistry of the operator, whereas Seagram's method produces consistent, sensitively accurate and highly useful results with all observers** (F. 8-9, 18-19, App. 13-16).

The foregoing should make clear that Greenewalt's claims were rejected on three non-sensory grounds which do not apply to Seagram's claims; hence, the Greenewalt decision is not pertinent authority for holding Seagram's claims to be non-statutory.

IMPORTANT SENSORY DIFFERENCES BETWEEN GREENEWALT AND SEAGRAM.

Because of the indefinite breadth of Greenewalt's claims, the results obtained in the practice of Greenewalt's method were neither consistent nor necessarily useful. **The results obtained in the practice of Seagram's method are consistent, sensitively accurate and highly useful** (F. 8-9, 18-19, App. 13-16). These differences in results are due to two important "sensory" differences which may be stated as follows:

1. The working and environmental conditions under which the sensory system operates in Greenewalt's method are not controlled but, in Seagram's method they are controlled; and
2. The sensory reaction involved in Greenewalt's case is dependent solely upon the artistry, skill, or even whim of the conductor, but in Seagram's method it is independent thereof.

These sensory differences demonstrate that the sensory phase of Greenewalt's claims rendered them of indefinite breadth. This is not true of Seagram's claims. So again we say that the Greenewalt decision is not good authority for rejecting Seagram's claims as lacking statutory subject matter.

SENSORY EFFECT HOLDING IS ARBITRARY AND UNSOUND.

The holding that Seagram's "physically" novel claims lack statutory subject matter simply because they involve a sensory effect in view of the Greenewalt decision, is, we assert, arbitrary because:

a. the Greenewalt decision was based on three non-sensory grounds which do not apply to Seagram's claims; or

b. the sensory phase rendered Greenewalt's claims indefinite, whereas the sensory phase of Seagram's claims does not affect their definiteness.

We also assert that such a sensory effect holding is arbitrary because Seagram's method claims:

1. comply with all of the patent statutes;
2. fall, not only within the broad definition of the word "art" as found in the Telephone case, but also within the more specific definition of that word as found in the animal tissue case of Ellis v. Coe discussed in Seagram's Brief at page 29; and
3. involve a physical result or effect which is utterly undistinguishable in character from the physical result or effect of the methods claimed in these cases;
    (a) the Telephone voice current cases (Seagram's Br. 30),
    (b) the Submarine distance measuring case (Seagram's Br. 30),
    (c) the Bullock motor speed changing case (Seagram's Br. 31),

(d) the Ernst hydraulic motor case (Seagram's Br. 33),
(e) the Kettering artificial fever case (Seagram's Br. 33), and
(f) the Ellis animal tissue case (Seagram's Br. 29).

INDEFINITENESS.

The Commissioner admits that the term "predetermined" connotes that some specific but unstated value is selected at some time prior to the testing procedure, but he asserts that, since it does not state that specific value, it would include values usually used in group tests, whatever they may be (Com. Br. 19). The predetermined value selected will, of course, depend upon the product being tested. For beer it is one thing, for soup another. If we assume that in conducting a hot soup test in accordance with Seagram's method, we select a predetermined temperature of 140°F. It may be that one person in a prior art group test will, by accident, also serve soup at 140°F. The difference, however, between Seagram's method and the prior art group methods is that, *in Seagram's method,* the **same predetermined amount** of soup will be consumed **by all observers** at the **same predetermined temperature** of 140° F. and judgment announced in the **same predetermined judgment time,** *whereas in prior art group methods,* **different observers** will consume **different amounts** of the same soup in the same test at widely **different temperatures** with **different judgment times.** *Seagram's control of temperature and other factors in this manner makes its method sensitively accurate* (F. 9-16, App. 14-15). **The failure of prior art group tests to control temperature and other factors in this manner is responsible for the failure of such methods to be either sensitive or accurate** (F. 11, App. 14).

If there be any merit to the objection of indefiniteness, it serves only to emphasize our position that Seagram should be given an opportunity to meet this objection in the Examining Division of the Patent Office for the reasons given in Seagram's Brief at page 16, and in this Reply Brief at page 3.

CONCLUSION.

In conclusion, we again urge this Court to find that all claims:

(a) are definite and allowable over the prior art, or to require the Commissioner to reopen the prosecution for further consideration of these particular grounds of rejection; and

(b) define statutory subject matter within the meaning of the word "art" as used in the patent statutes.

Respectfully submitted,

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